THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

VOL. III. CHICAGO, SEPTEMBER 6, 1884. NO. 10.

ORIGINAL ARTICLES.

OCCULT CAUSES OF DISEASE.

BY W. L. SCHENCK, M.D., OSAGE CITY, KANSAS.

[Read in the Section of Practice of Medicine and Materia Medica of the American Medical Association, May, 1884.]

The world moves in cycles—the earth on her own axis, around the sun, her path about the sun recording the mighty cycles of the glacial eras. Periodicity marks all nature. Theories and fashions in art and science come and go, to go and come again. "The thing that hath been it is that which shall be." To this rule medicine forms no exception. Its theories come and go with such regularity, they are hardly worth combating. The next cycle will set them aside, but again and again they will return until we build upon absolute truth. It is useless to disturb them, except as they stand in the way of enduring progress.

The causes of disease are oft-times hidden, and we may fail to discern them, but we should avoid building upon the sand. A cause in any science is that which excites or impels—that which produces a result without which it would not obtain, and which, existing, must tend to the result. To cause is to put in operation forces capable of producing given results, and the results of a cause, except in exceptional cases, must be uniform and definite.

Let us apply this test to the causes of disease, and especially to microscopic germs as their cause. The germ theory of disease is not new. The present is only one of its many cycles. Upon my introduction to the medical world more than a quarter of a century ago, some of our professors were wont to account for the erratic movements of Asiatic cholera upon the germ theory of causation, and to-day Cohn and Pasteur are vying with each other in their efforts to demonstrate microscopic germs as the cause of cholera in Egypt, and the theory is supported by many of the most distinguished names in medicine. Bassis discovered the presence of *bottitis bassiana* in the silk-worm disease. Pasteur and Cohn measurably demonstrated the relation of microscopic fungi to fermentation, and the conclusion was quickly and generally inferred that disease was fermentation, and microscopic germs its cause, and the term septic, from *sepein*, to rot, was applied to a most formidable class of diseases. All the world became microscopists. Polander and Davainè and Koch demonstrated the *bacillus anthracis*, Obermeyer discovered the presence of *spirillum Obermeyeri* in relapsing fever, Eberth and Freidlander the bacilli of typhoid fever, and Klebs of goitre, and Neisser of leprosy and gonorrhœa, and the search has been continued until specific micrococci have been found in septicæmia and pyæmia, in variola, vaccinia, rubeola, scarlatina, diphtheria, erysipelas, metritis, etc., etc. And why not? If specific bacilli are present in any large number of diseases, why not in all?

But when their presence has been proven and when it has been demonstrated that they are the cause of septic fermentation, of decomposition, have we proved them the cause of disease? When we consider the numbers and learning of those who affirm, it may be deemed presumption to question. But names and numbers count nothing in science. Every searcher after truth should give it as he perceives it. Only thus can truth advance.

It has been proved by all observers that the microscopic germs that are supposed to be the cause of various specific diseases, are not only present during the existence of those diseases, but are ever present in and about us. If they are the efficient cause of all or nearly all diseases, then a cycle may be made in spiritual medicine, and doctors and divines may go back to the days when all disease was attributed to the wrath of God. Brahma, the creator, is transformed into Siva, the destroyer, if he has created us and then filled earth and air with innumerable unseen foes whose function is to miserably destroy by pestilence and plague. The crowning act of creation—made a little lower than the angels, and made to be destroyed by the lowest types of animal and vegetable life! The highest creative art of Omniscience destroyed by the mad hand of Omnipotence by the meanest, lowest things that live! Of such a creation the record would hardly read "and God saw everything he had made; and behold it was very good." We believe science will confirm the record, and truth prove a unit.

As the astronomer was struck with awe and admiration when a more powerful telescope revealed to his astonished vision other and grander universes than his own, marking incalculable years as they moved by immeasurable paths through illimitable space about some centre of incomprehensible magnitude, so the microscopist, as his instrument revealed the multitudinous creations within and around him, mak-

ing each drop of water, each breath of air, and each corpuscle of blood teem with life, confused by these innumerable and never-ending creations, wrongly inferred that the earth no longer yielded her richness to the grasses and grains, these to be consumed in animal growth and the less highly organized animal in the development of a higher type, and man himself sacrificing his life for the growth of clan and country, and the spiritual elevation of his race, but taught that omnipresent microzones, in numbers numberless, lived and moved and had their being through the destruction of the highest type of creation. They have not only been proved ever present, but capable of a most wonderful reproductive power. Cohn estimates that a single microzone can produce one hundred and fifty billions of microzones in a day, reproducing by subdivision, breaking its endoplasm into spores with inconceivable rapidity. As far as known they are the lowest, simplest forms of cells. Below them life does not exist, and everywhere they are more numerously present than all other forms of life combined. We believe it will be found their omnipresence and wonderful power of reproduction is for beneficent and not malign purposes.

It is an undoubted fact that they cause putrefactive changes in organic products, and reduce them to their elemental state, but before they can do this there must be a condition present in organic structures rendering such change possible. They are within and about us in health, and harmlessly so. They cannot produce this change in healthy living tissues, vegetable or animal. In disease they reduce to elemental conditions the products of disease, and instead of being the avenging messengers of God are his good angels, "entertained unawares." They destroy dead matter without the body and with it may enter the living tissues, not to destroy them, but to resolve into their ultimate elements the death it causes. They are the ferment that prevents the living body from becoming encumbered with dead matter, the result not only of diseased but of healthy action. Destructive metamorphosis is one of the great life principles, and every thought, every movement, voluntary or involuntary, involves tissue death.

Death is as little understood as life, but is a fixed condition, as is shown by dead tissues preserved through the action of antiseptics. Could those who believe microscopic germs the cause of disease and its destructive agency apply their germicides in sufficient strength to destroy these micro-organisms, they would turn the Creator's good into evil. Arrest the disease which causes death, but save the organic ferment that transforms the dead tissue into innocent, elemental conditions, conditions that make it serviceable in the renewal of life, that make the continuance of life possible.

If there was no other reason, the proved universality of micro-organisms forbids the belief that they are the contagia of disease. If the cause, their universal presence would involve the universal presence of disease. If, for example, micrococci variola or micrococci rubeola are universally present and the efficient cause of disease, then small-pox and measles should arise *de novo* anywhere and everywhere where unprotected persons are found.

Dr. Firera, of Brazil, reports that he found the graveyards where yellow fever patients had been buried the year before teeming with the characteristic cryptococci of the fever, and that having confined a guinea-pig in a chamber with earth taken from a grave, after five days its blood was crammed with the characteristic germ in various states of development. He considers graveyards as a perennial cause of yellow fever. Why not have the yellow fever perennially? If such observations prove anything they prove too much for the germ theory. If the causes of disease are ever present the sequents should be ever present. If the graveyard continually teems with the cause of yellow fever it should "show forth works meet for repentance." There must be some mistake about causation.

The fermentative action induced by micro-organisms is a destructive action. The putrefactive process is a process of reduction, of dissolution. The process of disease is a developmental process, a process of organization. "Every pathological product must have a physiological prototype (Virchow). Every normal cell has an inherent power of reproduction, and every physiological process is a process of normal cell production, hence every morbid cell has an inherent reproductive power and every pathological process is a process of morbid cell production. Beale says of diseased bioplasm "its particles are estimated to weigh many hundreds of times less than starch corpuscles or the scales of an insect's wing, and are capable of floating in the slightest currents of air. These diseased particles, floating readily through the air are inhaled by the lungs, taken into the stomach, absorbed by the skin, or coming into direct contact with the tissues through abraded surfaces, have, until destroyed by the fermentative action of microscopic germs, the inherent reproductive developmental power of establishing pathological processes like those which gave them birth. The cadaver, or any dead tissue, before it swarms with micrococci septicæmia, and by their agency, has undergone fermentative decomposition, is capable of producing in living tissue a typical septicæmia. After putrescence, however numerous its vibriones, it is innocent of harm. Inoculation with it will not cause septic disease.

If then the so-called disease germs are ever present, and disease does not follow their presence as sequents follow causes, and if when present in the greatest numbers they are incapable of producing disease, is it not evident there must be some devitalizing influence, some efficient cause, precedent to germ accumulation and zymosis.

In addition to the presence of microscopic organisms during disease, the germ theory is based on the fact that germicides prevent its development and arrest its progress. Many distinguished investigators have by careful experimentation demonstrated the exact strength of various agents required to destroy germ life and have found though infinitesimal themselves, their vitality is unaffected by infinitesimal dynamizations. We will only refer to the carefully

conducted experiments of Dr. Geo. M. Sternberg, U. S. A., published in the *American Journal of Medical Sciences*, April, 1883. He placed at the head of the list of germicides *mercuric bichloride*, and found the proportion in which it prevents the development of septic micrococci is one part in 40,000, and that the strength required for their destruction is one part in 20,000. He found "*carbolic acid* failed to destroy the micrococcus from pus in the proportion of 0.5 per cent.; but this amount was fatal to the septic micrococcus," when immersed in it for two hours. The average man weighs 160 pounds, and his blood 20 pounds. The dose of bi-chloride of mercury required to saturate his blood to the point of preventing the development of septic micrococci in it would be three and one-half grains, and a dose of seven grains would be required for their destruction, and the necessary dose to saturate the whole body sufficiently to prevent their development in it would be a little over 23 grains, while the dose of carbolic acid required to saturate the blood sufficiently to destroy septic micrococci would be one pound.

However true the theory that septic organisms cause and continue disease, all experiments prove that germicides, in medicinal doses, are wholly inadequate to their destruction or prevention, and hence whatever support the germ theory may have received from the action of the so-called germicides in the treatment of disease is without support, and the success arising from their use must be attributed to some other action. The amount of germicides, as well as the degree of heat and cold necessary to destroy micro-organisms will destroy the life of the patient.

A distinguished physician in an article published in the JOURNAL AM. MED. ASSO., Nov. 3, 1883, says "Water containing albumenoids in solution, if allowed to become standing, is sure to undergo deleterious changes from its infection from the *ever present* atmospheric germs which utilize these products as food and reproduce in numbers utterly beyond conception. * * * The spores of certain forms of these lower orders of vegetation have a remarkable vitality, and have resisted a dry heat quite above boiling water." In a paper read before the last meeting of the American Medical Association the same gentleman places "bi-chloride of mercury preëminently at the head of the list of germicides," recommends a solution of 1 part in 2000 as the proper strength to destroy bacteric life, and says "under the light of new values preparations of mercury are likely to be restored to their old time professional confidences." In his enthusiastic advocacy of the germ theory of disease, he says, "In a purely conservative sense it is not too much to claim that it may be shown that each of these affections" (of the entire zymotic group) "has its origin from, and owes its dissemination to a *contagium vivum* of a definite particular character." * * * "In the light of recent astonishing discoveries no wise man would prognosticate a limit to our future knowledge in this direction. It is not too much to predicate as possible or even probable that the medical art in the near future will hold control over the entire class of zymotic diseases as effectually as vaccina has controlled and relegated to an almost hypothetical danger the terrible scourge of small-pox which ravaged humanity during many centuries of the historic ages. * * The so-called germ theory has passed into the realm of demonstrated fact. The patient labors of scores of very careful investigators during the last generation have slowly elaborated the fact that fermentation is dependent upon a particular something *omnipresent in ordinary surroundings*, and clearly shown that this something belongs to one or another of the varieties of exceedingly minute vegetable organisms." "*Ever present atmospheric germs*," "*Omnipresent in ordinary surroundings*," the cause of disease and yet disease occasional, exceptional. Disease arrested through the administration of solutions of bi-chloride of mercury, carbolic acid, etc., of sufficient strength to destroy the "*remarkable vitality*" of these omnipresent germs that "resist heat quite above boiling water," and thus "relegate zymotic diseases to an almost hypothetical danger." All this "passed into the realm of demonstrated fact," and "no wise man will prognosticate a limit to our knowledge in this direction." The writer may not be a "wise man," but he will not only "prognosticate a limit to our knowledge in this direction," but will express the opinion that the general adoption of the germ theory of disease is prejudicial to progress in therapeutics and scientific medicine and is untenable both in theory and practice.

We believe the truth has been elaborated that "fermentation is dependent upon a particular something omnipresent in ordinary surroundings," and that that something "belongs to one or another of the variety of exceedingly minute organisms," but it has not been shown that disease is omnipresent, or that minute organisms are the cause of disease, or that the fermentation they produce is disease, and it has not been shown possible to follow these omnipresent organisms through the circulation, the glands, bones and tissues of the body and destroy them by any known agency without at the same time destroying the vitality of the body.

We further believe the microscopic germ, so far from being a disease germ is a beneficent agent, and the fermentation it produces, a beneficent process, and that as antiseptics cannot be used in or upon the body in sufficient strength to act as germicides without injury to healthy tissue, their benefits accrue from other causes.

If germs are not the cause and sepsis is not disease, we may be asked what is the cause, and what is disease. We may not know, but knowing what is not disease and its cause, we are relegated back to the old base, and ready to commence our search anew.

We do not know what death is, but we do know that inanimate or devitalized matter may remain unchanged or return to its original elements, but that it has no power of growth or reproduction; and whilst we do not know what life is, we know that it exists in the germ cell and in the sperm cell, which though while separated have no power of growth and only a limited lease on life, when united form an embryonic cell, capable of molecular changes, silently

evolving cells of varied structure and function, capable of cell proliferation and differentiation, each differentiated cell proliferating to a definite end. We know that in the insignificant embryonic human cell is hidden the future man. Unfolding, expanding, developing it evolves tissues and organs, through whose instrumentality a spiritual life reaches out and up to the infinite. As unseen and unsuspected beauty and perfume lie latent in the germ that grows into the full blown flower, so all the grand possibilities of life lie in the simple microscopic embryonic cell. But alas! it contains other possibilities; under this same life force morbific cells, tending to disease and death, may be differentiated.

Disease is a pathological process, but a process that has a physiological prototype. Normal cell development in its multiform phases is the physiological prototype. Morbid cell development the pathological process. The physiological process tends to perfection, to life. The pathological to destruction, to death. Each is a cell proliferation, the abnormal at the expense of the normal.

The abnormal is less tenacious of life than the normal, and may be destroyed by agencies that do not affect it. The normal may by its inherent power—the "*vis medicatrix natura*" arrest the abnormal. Strengthening this power, and arresting morbid development is the function of practical medicine, and involves other, and more, than a search after germs and germicides. It embraces the causes, condition and prevention of morbid cell proliferation and leads us to comprehend why the so-called germicides and antiseptics, of insufficient strength to destroy germs and arrest septic changes, may arrest disease and restore health. We can understand how pure air, which has no germicidal power, tends to arrest disease and why "cleanliness is next to godliness," why agents without any germicidal power or in quantities incapable of germicidal action are efficient in many septic diseases. It is true some physicians persist in attributing their action to their germicidal power, but they sin against light and knowledge. Thus Dr. T. in the *Medical News*, Dec. 3, 1883, says: "I prefer borax for routine applications in suppurative otitis media. It is more readily soluble than boracic acid, *and is an energetic fungicide.*" Dr. Bennett reports many successful cases treated by boracic acid, while Dr. Walb says "boracic acid actually encourages the growth of germs," and Dr. Sternberg "boracic acid and sodium bi-borate are equally inefficient as germ destroyers, but both possess considerable antiseptic power." In reference to the experiments of Dr. S. we would suggest to those who adopt the germ theory, if germs are the cause of the septic process, that if they continue unaffected while it, or disease, is arrested, there must be other than germicidal or antiseptic force in the agent.

Tr. ferri chloridi is one of our most highly esteemed agents in erysipelas, typhoid fever and diphtheria, but Sternberg found it an inefficient germicide in the proportion of 4 per cent. It cannot therefore cure these diseases by virtue of its germicidal power. In diphtheria we have had very satisfactory results from a combination of sulph. quinia, sulpho-carbolate of soda, and sulphur in glycerine, but not, we think, because either have any considerable germicidal activity. Diphtheria is a constitutional, as well as a local disease. The tendency of its materies morbi is to lower the vitality, and yet we find mercuric bichloride, an agent of similar tendency, highly commended in its treatment, simply because it is an energetic fungicide, the germicidal power of the agent outweighing every other consideration. If it was given in germicidal doses it would be vastly more destructive than the disease. Since it has been placed at the head of the list of germicides, distinguished gentlemen exult in the thought that mercury is to be "restored to its old-time popularity." Surely the old-time experience with the drug, either by the patient or the physician, was not crowned with laurels.

Quinine is more largely and successfully used in the treatment of septic diseases than any other single agent. Yet Dr. Sternberg found it possessed a very low germicidal power. Lister had great faith in the theory that germs were the cause of disease, and saturated the air of his operating room and the wounds of his patients with carbolic acid, but, in the light of the experiments of Sternberg and others, never to a sufficient extent to destroy the germs, and with no better success than has followed his practice since he has abated his zeal in that direction.

A careful comparison of the results obtained by surgeons and obstetricians who do not use antiseptics with any intent to secure their germicidal action with those who do, goes far towards disproving the theory of germ causation. Mr. Tait and Mr. Keith, once advocates of the germ theory, have surely demonstrated that the greatest success yet attained has been reached by other means than destroying germs, and if the germicidal action of drugs can be ignored in abdominal surgery, may it not be dispensed with elsewhere? Though Volkmann and Billroth have used carbolic acid and corrosive sublimate fully and freely and have attained great success, their results have not equaled those of Tait and Keith, nor can the success they have achieved be in any measure attributed to the germicidal action of the drugs they have used, for they have not used them in sufficient strength to destroy germs.

One more thought. It is claimed specific micrococci are the cause of various diseases, because when isolated and cultivated through several generations, in a non-contagious medium, they will, if introduced into the body, produce their specific diseases. Our only reply is to quote one of the warmest advocates of the germ theory: "They are omnipresent in all ordinary surroundings." Yet without some added factor they do not produce disease.

Mycologists very generally agree that microzones are often present without the disease they are supposed to induce, that the disease is often present without the microzones, that they are frequently negative at the beginning, and most declared after the disease is fully established, when tissue disintegration is at its height, and that the pathological conditions they produce widely differ. If there is any law of causation the cause must precede the disease it pro-

duces, and when present must always tend to the given disease, be its chief factor, and produce it and no other disease. Tried by such simple tests, can bacteria, by any proof yet adduced, be considered even the occult cause of any considerable number of diseases?

A CASE OF RHINOLITHIASIS.

BY JEFFERSON BETTMAN, M.D., CHICAGO.

Read to the Chicago Medical Society.

The comparative rarity of this affection, and the intereresting features connected therewith, induce me to present the following case:

Mr. M., æt. 49, consulted me June last for what he termed "chronic catarrh in the head." The trouble extending over a period of many years, he had at various intervals been under medical treatment, but the benefit he received had always been transitory in effect. Of late the annoying symptoms had become so aggravating, that he had consulted Dr. Ernst Schmidt, of this city, who kindly referred him to me. A nasal discharge, existing for many years, had of late become so copious as to necessitate a daily use of from four to six handkerchiefs. In connection with this, he was subject to periodic attacks of neuralgic headache. According to his description these attacks were hemicranic in nature, extending over the right orbital and temporal regions. As far as he had noticed, there had never been much impediment to free nasal respiration. Later examinations, however, elicited the fact that there was marked obstruction on the right side; a condition which had heretofore escaped the patient's attention.

Status præsens: Mr. M. is a gentleman of goodly dimensions, well-proportioned and to all appearance a picture of florid health. The external nose appeared congested and slightly tumefied, the borders of the nostrils somewhat excoriated. A mere superficial examination, the simple introduction of the nasal speculum occasioned violent attacks of sneezing. During the examination and subsequent operative attempts, I was very much handicapped by this exquisite hyper-sensibility of the nasal mucous membrane. Upon coming in closer proximity to the patient, an unmistakable fetor was noticeable in the expired breath. This fetor, although to a limited extent, was also imparted to the nasal secretion. The latter, viscid and slightly flocculent, filled both nostrils and necessitated a thorough removal ere permitting a survey of the parts. Upon illuminating the nares by means of reflected gas-light, a marked vascularity and thickening of the mucous membrane in general was noticeable. The tissues covering the inf. turbinated bones were so thickened, as to encroach upon and nearly obliterate the fissura respiratoria. The mucous membrane covering the septum was exceedingly congested, sensitive to the slightest touch, and in its tendency to bleed upon the slightest provocation, almost fungoid in nature. Both middle turbinated bones were sufficiently enlarged to press upon the septum. The posterior half of the right nasal fossa, as far as could be judged from a mere visual examination, seemed to be filled with an accumulalation of creamy discharge. Attempts to remove it by a well-directed stream of tepid water proving futile, a cotton-wrapped probe was made use of. The nasal lumen was so narrowed and encroached upon by the hypertrophied turbinated bone and a co-existing deflection of the septum, that some difficulty was experienced in guiding and directing the probe. The parts, as already mentioned, were so sensitive that great persuasion was necessary to induce the patient to submit. Palpation soon revealed the presence of a hard, grating substance occupying the floor of the right nasal fossa. The sensation it imparted being identical with that of osseous structure, I not unnaturally was misled as regards the character of the substance. Its position, its irregular shape, all led me to infer the presence of a necrosed or carious bone. Acting upon this inference, I inquired closely to shed, if possible, any additional light upon what I accordingly considered the result of a constitutional dyscrasia. Thorough inquiry was, however, negative in strengthening the suspicions entertained. His assertions to the contrary, and in face of my inability to establish any trace of constitutional taint, I could not dissuade myself of the osseous nature of the body. Explorative examinations, owing to the sensibility of the parts, yielded but little. Seeing that under the circumstances further examinations and attempts at removal were hardly indicated, all active proceedings were temporarily checked, and the patient was advised to return in a day or two. To allay the morbid sensibility of the parts and to reduce, if possible, the acute swelling of the tissues, a detergent nasal lotion was advised to be used *ad interim*. Its use was certainly effective, as at the next meeting, two days later, there was a marked diminution of this hyper-sensibility and a considerable reduction in the volume of the tumefied mucous membrane. Under a strong illumination the exact position of the foreign body was now satisfactorily defined. Lying on the floor of the nasal fossa in its post-half, it seemed to be impacted between the bony septum and inferior turbinated bone. The exposed surface of the body was rough, uneven and unyielding to the touch of the probe. Former experience proving convincingly, that syringing would be of little or no avail in attempting to dislodge and remove it, instruments were resorted to. For this purpose I used a pair of strong aural forceps bent at right angles, the blades tipped with fine, serrated surfaces. But little difficulty was experienced in getting the body within the grasp of the forceps, however, upon traction, a firm resistance was met with. During the examination the fauces were uncontrollably irritable, defeating all attempts at posterior rhinoscopy. Anterior inspection yielded but limited information, so I apparently underestimated the size of the body. Firmly wedged in the lower meatus, it resisted all attempts to dislodge it and compelled the adoption of other means. Its immo-

bility convinced me that a removal *in toto* anteriorly would be exceedingly difficult if not even impossible. Taking into consideration the narrowed lumen of the nasal passage, such a procedure would have necessarily produced great bruising and injury of the tissues, caused annoying hæmorrhage and much suffering to the patient.

Subsequent endeavors were directed toward reducing the volume of the body and removing it piecemeal. These attempts were but partially successful, as after repeated trials but a diminutive fragment thereof could be detached. This and the objections raised by my patient, who up to this time had borne up bravely, hardly encouraged me to persist in my attempts. It was only now that the feasibility of removing it through the naso-pharyngeal space, presented itself. Fully aware of certain risks thus incurred, I was happy under the circumstances, to avail myself of any decisive measure promising relief. To effect this, I made use of a cotton-wrapped probe.

Cautioning my patient not to inspire deeply or swallow during the act, and carefully guarding the faucial orifice myself, I essayed to force the body into the naso-pharyng. space. It was the work of but a moment and succeeded with astonishing facility. The gentleman, heeding my admonition, in another moment spat out the foreign substance. Darkish gray, almost black in color, conoidal in shape, emitting a highly disagreeable fetor,—all tended for the first moment to confirm the previous diagnosis—necrosis. It was only on closer examination, however, that the true nature of the body was revealed. Its weight, firm consistency, and the pebble-like uniformity of its unexposed surfaces were sufficient to indicate its calcareous nature. Irregular in shape, the contours of the concretion conformed to the confines of the surrounding tissues; a broad, somewhat irregular surface, corresponding to the septum, a smooth, rounded surface to the floor of the nose, and a lateral concave face which bore the impression of the inf. turb. bone. Irregular in shape, resembling somewhat a truncated cone, it is difficult to present exact data as regards its dimensions.

Its medial surface (referring to its position *in situ*) measured 1½ centimeters in length by 1¼ centimeters in breadth, the inferior surface, smaller and rounded, 1½ by ½ centimeters. The medial surface was slightly furrowed and showed distinctly the impression of the serrated edges of the forceps. The exact weight of the concretion was 1½ gram. To assure myself as regards its calcareous nature I detached a small segment with my penknife, and to my great astonishment, found embedded in its mass a large cherry-stone. The etiology of the case was now clear to me. The interest on part of my patient was naturally heightened on learning of the peculiar contents of the concretion. Incidents of early childhood were vividly impressed upon his memory, and he could in no possible manner account for the presence of the cherry-stone. Free nasal respiration was fully restored and great relief experienced immediately after removal. To describe the case in full, it will be interesting to add that I subsequently discovered a small mucous polyp high up in the same nostril under cover and almost hidden by the middle turb. bone.

Rhinolithiasis, a term first applied by Demarquay,[1] is by no means a common occurrence. Stoerk[2] in briefly describing it in his text-book, avers that he has seen but one example of it. It is not surprising then, that no mention is made of it in many works on general surgery. By far the greater number of cases have been observed and described by our French confrères. Both Demarquay and Poinsot[3] have written most comprehensive and exhaustive brochures on this subject.

In the preponderating number of cases on record, the determining cause of the concretion is the presence of a foreign body which forms a nucleus for the deposition of lime salts. Nasal concretions have, however, developed independently, and not due to the presence of any extraneous substances. In these isolated cases the inciting cause, according to Poinsot, may have been a collection of desiccated crusts or scales. The anatomical configuration of the nares no doubt exerts an important influence in the development of such concretions. Congenital or acquired atresia, stenosis of the nasal lumen, favor the retention and subsequent desiccation of nasal secretion. Graefe, according to Durham,[4] considers a gouty diathesis a predisposing cause of rhinolithiasis. Virchow[5] has observed and described a calcareous degeneration of the mucous membrane of the nose and accessory cells, a condition due to the so-called "Diathesis Ossifica." This state is due to an entirely different process, and must be rigidly distinguished from the subject under discussion. As already stated, the presence of a foreign body is generally the primary and inciting cause. With but few exceptions these extraneous bodies are pushed or forced into the anterior nares; an occurrence so common in childhood. It can not be doubted, however, that during an act of vomiting or retching, undigested particles of food may be forced through the naso-pharynx and lodge in the posterior nares. Barring this possibility, in the case under consideration the concretion may be presumed to have been of more than forty years development. In a similar case, lately described by Jacquemart,[6] the trouble existed over twenty years. These concretions are, as a rule, single, but instances are not wanting in the literature on this subject (*vide* Axmann,[7] Kern) in which multiple rhinoliths were found. In size these concretions naturally vary, from that of a lentil (Rouyer[8]) to that of a small plum (Voltolini)[9]. Both Verneuil[10] and Brown[11] have published cases, in which the size of the rhinoliths had prevented their removal

[1] *Archiv. gen. de Med. Juin*, 1845.
[2] Klinik der Krankheiten des Kehlkopfes. Stuttgart, 1880, S. 91.
[3] Diction. de Médecine et Chirurg. Pratiques, TOME XXIV, p. 31.
[4] Holmes, Syst. of Surgery, 1870, vol. iv.
[5] Cellular-pathologie, iv Aufl. Berlin, 1871, S. 453.
[6] Annales des Maladies de l'Oreille, etc. Mars 1884, T. x, p. 47.
[7] *American Journal of Med. Scien.* Vol. v, p. 204.
[8] Bull. de la Soc. Anatom., 1857, p. 60.
[9] Anwend. der Galvanokaust. 1872, p. 240.
[10] *Gaz. des Hop.*, 1859, p. 25.
[11] *Edinburg Med. Journ.*, 1859, No. liv, p. 501.

in toto. The dimension of the concretion is to a great extent influenced by its location and confines. The favorite seat for their development is the posterior, inferior part of the nasal fossa; a situation most favorable for the lodging of a foreign body. Upon section the concentric deposition of calcareous matter can be seen in the shape of striæ or lamellæ, the foreign body or a mass of organic detritus forming the nucleus. In the case of Brown the nucleus consisted of a fatty albuminous mass, whilst Phouret[1] records an instance in which there was merely a shell of calcareous matter enclosing a quantity of fetid mucus.

Chemically they are composed principally of carbonate and phosphate of lime. The more recent examinations of Geiger and Bouchardet[2] also demonstrate in many cases the presence of magnesia, salts and alkaline chlorides. Rhinoliths are usually covered with a coating of soft, pultaceous, fetid material composed of epithelial debris, pus and cholesterine. The symptoms incited by the presence of these concretions are frequently not marked and are accordingly overlooked; the rhinorrhœa being regarded and treated as catarrhal. The normal amount of nasal secretion is greatly augmented and takes on a fetid character. Due to the congestion of the tissues, epistaxis is a common occurrence. The chronic vascularity induces a state of hypernutrition and cellular activity in the surrounding tissues, favoring redundancy and neoplastic changes (Billroth[3]); thus the not infrequent conjoint presence of polypi may be accounted for. That these polyps occasionally form an important factor, is illustrated in a case observed by Clark.[4] It was only after the removal of a large mucous polyp, that further examination with a probe revealed the presence of a rhinolith. A noteworthy symptom and one present in many cases is the existence of a hemicrania or nervous headache. The intermittent nature of these attacks in my case is similar to an observation recorded by Verneuil. A case of Axmann's is of interest, as the hemicrania was periodically checked by the spontaneous expulsion of several small concretions. Hack[5] has recently called attention to the reflex neuroses arising from nasal diseases, and the above-mentioned symptom may be included under the same category.

It is generally very difficult and at times almost impossible to determine the nature of the foreign body while *in situ*. In exceptional cases, situated anteriorly, its details may be discerned under a strong illumination and but little difficulty experienced in making a correct diagnosis. In the preponderating number of cases, however, the concretion lies in the posterior part of the nasal fossa embedded in the surrounding mucous membrane and covered with a mass of secretion. Posterior rhinoscopy occasionally renders valuable service in their detection. The sensation it imparts to the probe is so similar to that of bone, that this mode of diagnosis is anything but reliable. In Jacquemart's case, already alluded to, not only the author himself but more than ten consultants had made a previous diagnosis of osteo-sarcoma. With all appliances and means of diagnosis at hand, an error is often unavoidable. In the few cases on record in which rhinoliths were expelled spontaneously, the concretions were very small and in Axmann's case, multiple. Surgical interference is as a rule necessary. Before resorting to instruments for this purpose, less energetic means should be tried. As in the removal of foreign bodies generally, a stream of water injected through the other nostril may in some cases prove effectual in dislodging the concretion. Fraenkel[1] deems the use of sternutatories worthy of trial. These means are generally inadequate and extraction per instrument is indicated. Ere any attempts are made, the parts should be carefully surveyed and the exact position of the concretion determined. Not sufficient stress can be laid upon the necessity of introducing and manipulating instruments under the guidance of the eye—in other words, under illumination of the parts. What havoc, terrible suffering and unnecessary hæmorrhage are so often attributable to the carelessness or recklessness of the operator in this regard. In general, it remains to be doubted whether any part of the body has been dealt with in so slipshod and reprehensory a manner as the nasal cavity. Even at our present day, when nasal surgery has assumed a dignified position these, to say the least, humane precautions are often ruthlessly neglected. The modern status of scientific surgery brands such proceedings as unwarrantable as they are brutal. Judging from this standpoint, even the dictum of the late Pirogoff,[2] who to prevent repullulation of nasal polypi advises the removal of the entire turbinated bones, must lose the weight which would otherwise be attached to it.

Various instruments have been devised for the extraction of rhinoliths. If accessible, a pair of ordinary dressing forceps, or, better still, strong aural forceps bent at right angles, will fully answer the purpose. As is frequently the case, the concretion is firmly wedged in, and must be pried out ere its removal can be accomplished. To effect this, Cohen[3] advises that the point of a knife be passed under the calculus into the soft parts, and it subsequently be pried out by a blunt instrument.

Durham[4] has devised forceps with separable blades, similar to obstetrical forceps. The size of the calculus at times prevents its removal in mass, and measures to reduce its dimensions must be adopted.

Verneuil, previous to extracting a huge rhinolith, crushed it with a sort of lithotrite. In such cases the dental drill could, no doubt, render signal service. If situated at the orifice of the posterior choana, Poinsot advises the use of retro-nasal forceps. In post-nasal extraction strict precautions must be adopted to prevent the concretion from falling into the larynx.

113 Adams street.

[1] *Vide*: Poinsot loc. cit.
[2] *Vide* Poinsot loc. cit.
[3] Bau der Nasenpolypen.
[4] *Med. Annals*, February, 1883.
[5] Erfahrungen aus dem Gebiete der Nasenkrankheiten. Wiesbaden, 1884.

[1] Ziemssen, Krankheit. des Respirations-Apparat. Bd. iv. 1 Heft, S. 189.
[2] Klinische Chirurgie, 3tes. Heft. S. 73. Leipzig, 1854.
[3] Diseases of Throat, p. 390.
[4] Loc. cit.

ETIOLOGY OF PERICARDITIS.

BY JAMES T. WHITTAKER, M.D., OF CINCINNATI.

[Read in the Section of Practice of Medicine and Materia Medica of the American Medical Association. May, 1884.]

Pericarditis is a disease of greater frequency than is generally believed. The statement made by the author of this paper in the Cincinnati Academy of Medicine that pericarditis is ordinarily oftener overlooked than recognized, having been denied by several members, was strikingly confirmed by an ex-interne of one of our largest hospitals, who observed that of the five cases which had occurred in his service, the diagnosis was made in intra vitam in no single case. The existence of the disease in every case was made apparent only on the post-mortem table. Maurice Letulle, *Gaz. Med. de Paris*, 22–50, 1879-80, remarks that of all acute or chronic diseases, pericarditis oftenest runs a latent course.

The failure to recognize pericarditis depends upon the fact that so few of the symptoms of the disease are local. It is only in the face of effusion, and mostly of some magnitude, that signs pertaining to the heart are manifest.

Then if we sum up all the possible causes of pericarditis we observe that in most cases the disease is independent of rheumatism. Rheumatism remains of course the most frequent of any one cause of pericarditis, largely because of the frequency of rheumatism. Rheumatism is the most frequent of a great group of diseases produced by micro-organisms. Any disease produced by micro-organisms may be attended by pericarditis.

Medical teachers and clinicians so often emphasize the fact that pericarditis is a sequel to rheumatism that in the absence of rheumatism the existence of pericarditis is not even suspected. The failure to recognize pericarditis depends largely upon the fact that the existence of the disease is not suspected. For when the suspicions of the practitioner are aroused the diagnosis is generally easy. A striking illustration of this fact I saw in a case that occurred in my practice a few months ago. The patient had been the victim of unsuspected pericarditis, with effusion, for fifteen years, at least the same symptoms had been present in greater or less degree all that time. The prominent symptoms were pallor, dyspnœa, such vertigo as to compel the recumbent position, occasional cough and a pulse so feeble as to fade away when the arm was held at right angles to the body.

Digitalis and alcohol administered from time to time obviated imminent collapse. There was undoubted increase of dullness over the region of the heart which had been taken for dilatation. By aspiration one pound of serum, at first clear, later brownish and flocculent, was withdrawn from the pericardium. The symptoms of immediate danger soon disappeared. But the long pressure and maceration had weakened the walls of the heart to such an extent as to prevent perfect recovery. This was my third case of long continued unsuspected pericarditis with effusion. In every instance inquiry had been made as to the previous existence of rheumatism, and in the absence of it no further attention had been given to the heart. It is not safe to exclude pericarditis in the absence of preëxistent rheumatism, first because pericarditis arises in consequence of so many other conditions, and second because the pericardium may be in rheumatism the first and only joint (so-called) affected.

The frequency of occurrence of pericarditis is best shown by statistics from hospital practice where accurate records are kept and full autopsies are held in all fatal cases. The latest statistics in easy reach are from the general hospital in Vienna. According to the report for 1880, there were treated during the year 23,249 cases of disease of all kinds. Of this number 551, about one-fortieth of the whole number, were cases of rheumatism. However, but 390, about one-sixtieth, were cases of rheumatism of the joints. Pericarditis occurred 32 times, or once in every 726 cases of disease of all kinds. The point of especial interest is the fact that the pericarditis was a sequel or consequence of rheumatism in but six cases, while in 26 cases, that is five times as often, the disease depended upon other causes. Endocarditis, it may be mentioned in passing, occurred but 15 times. Pericarditis was therefore in that year twice as frequent as endocarditis. This ratio may have been an accident, or it may be that endocarditis only seems more frequent, because it leaves valvular lesions. Patients recover or die of pericarditis quickly, as a rule. Cases do not accumulate as in endocarditis.

The older statistics based simply upon clinical observation speak for the greater frequency of endocarditis. Thus Sibson's record shows three times as many cases of endocarditis. But clinical observations can give no precise information regarding the frequency of pericarditis for the very reason that the disease, so often latent, is overlooked.

Exact information in this respect can come only from the dead room. Duchek claims to have found evidences of pericarditis 89 times in 590 post-mortem examinations, that is in a fraction over 15 per cent. of all the autopsies made, and while this ratio must be regarded as an overestimate, for the reason that Duchek included in his diagnosis the cases of so-called milk spots, which are now no longer regarded as pericarditis in the true sense of the term, yet making allowance for the tendinous spots which are especially frequent in ages when true pericarditis is especially infrequent, it is seen that pericarditis is a comparatively frequent disease. Perhaps the statement of Willigk that pericarditis is encountered in 4 per cent. of autopsies is nearer the truth in that this statement is based upon observations made during the earlier periods of life. The relative frequency of pericarditis is dwelt upon, for the reasons, first, that it makes a great difference in prognosis and treatment whether the outside or inside of the heart is affected, and second, because we diagnosticate diseases in the order of frequency. Later observations only serve to confirm the statement of Bauer to the effect that "formerly and up to the close of the last century, pericarditis was considered a rare disease; since then,

it has been proved to be of quite frequent occurrence."

It is universally conceded that pericarditis occurs oftener among males than females. Of the 32 cases cited from the Vienna hospital, 23 were males. Louis says of his 106 cases that only one-fourth were females, a ratio which agrees with the observations of Hache. Bamberger's ratio was 38 males, 25 females. Sibson, who saw the largest proportion of females of any author, observed, nevertheless, the preponderance of males; of his 63 cases 35 were males, 28 females. This ratio points to the greater liability of males to the diseases which cause pericarditis.

Excluding the cases of so-called tendinous spots, which are now regarded as simple friction scleroses or hyperplasiæ of senescence, it is as generally admitted that pericarditis is a disease of youth and maturity. Grisolle and Bamberger unite in the statement that the maximum frequency of the disease occurs between the ages of 20 and 30. The appearance of the disease at any period of advanced life is, of course, not excluded by this statement, and emphasis should be put upon the fact that undoubted cases of pericarditis have been observed in fœtal life; yet the period of occurrence of maximum frequency points unmistakably to the class of diseases most responsible for pericarditis, viz.: the acute infectious diseases.

Just here it may be mentioned that pericarditis occurs in all lands and climes. Hirsch quotes from Morehead the remark "Complicating pericarditis or endocarditis is, I believe, as common in one country as another. Epidemics of pericarditis are cited by Friedreich from Trècomb (1755) in the siege of Rocroy; by Hubert (1814) in the siege of a garrisoned fort, in connection, Friedreich thinks, with pleuropneumonia; and by Lalor in connection with an epidemic of febris continua in Kilkenny in 1848–49. The epidemics of hæmorrhagic pericarditis observed by Seidlitz, Kyber, Himmelstein and others, along the Russian coast, and among the marines, at Moscow, Sebastopol, etc., clearly arose from scurvy.

The relation of occupation to pericarditis has been best shown by Sibson, who observes that "servants formed fully two-thirds of the whole of the female patients affected with pericarditis." Girls engaged in the hard labor of a servant at work, at a tender age, from morning to night, when attacked with rheumatism, to which they are so subject, are all but certain to have inflammation of the heart without or within. They are growing, he says, their frame is not yet knit, they are sensitive to cold and wet, and they are subject to palpitation. It is interesting to note of Sibson's cases that pericarditis occurred in none of his females of sedentary occupation, needlewomen, etc. The influence of hard work is still further proven in the analysis of his male cases. "*Ubi stimulus ibi affluxies.*"

Pericarditis is described in the books as being primary and secondary in its nature, and much confusion exists as to what is meant by primary pericarditis. If by primary is meant a spontaneous or autochthonous inflammation, the term should be discarded altogether, for it may be said that pericarditis never arises in this way. Pericarditis is, strictly speaking, always a secondary or deuteropathic malady. There are met, it is true, occasional cases where the cause has not been or cannot be discovered, and these cases might better be labelled inexplicable than primary. All modern writers agree as to the great rarity of so-called primary pericarditis. Duchek saw only one case in 89, Bamberger but 4 in 63. Friedreich with his wide experience, met but two cases in which he could discover no cause for the disease. Since the field of catching cold is being daily more and more contracted in the etiology of disease, it is wiser to be agnostic regarding inexplicable cases than to appeal to doctrines incapable of demonstration and hence bound to become obsolete.

An etiological division of cases more in accord with existing knowledge would be into consecutive (or mechanical) and infectious (or mycotic). Under the head of consecutive origin would fall the cases of insult or injury to the pericardium from without, as by traumatis, by perforation from a gastric ulcer, from the œsophagus, from an abscess of the spleen, from pulmonary and pleuritic processes, echinococci, aneurisms, caries of the vertabræ, sternum and ribs, mediastinal affections, inflammations of the mammæ, skin diseases—in short, all involvements of the pericardium by contiguity or continuity of structure, including under this head also extensions of inflammation from the heart itself.

While these cases of so-called mechanical origin form a respectable contingent of all the cases, they nevertheless remain in the minority, all combined, when compared with the inflammations or processes secondary to the infectious diseases. As these mechanical causes of the disease are for the most part apparent, or may be discovered by careful search, and as the pericarditis in these cases is only an accident, so to speak, in the history of the original malady, they may be properly relegated to chapters on the possible complications of the various maladies.

Pericarditis proper belongs as a link in the chain of the acute infections. Probably the time is not far distant when separate forms of the disease will be recognized as dependent upon different etiological factors. Just as we now recognize as very different affections, the inflammation of the lungs produced by a trauma, by an embolus, an abscess, a catarrhal process, etc, from a true croupous pneumonia, we may come to consider as a separate affection the pericarditis which develops in the course of the infections in consequence of the immigration into its structure of micro-organisms.

There are special reasons why these micro-organisms come to be deposited by preference in the serous membranes and by especial preference in the pericardium. In the first place, the circulation in these structures is very sluggish, is stagnant at times, and just as uric acid in gout comes to be deposited guttatim in the big-toe joint, over the knuckles, in the lobule of the ear, etc., places where the circulation of the blood is slowest, border lines of the circulation, as it were, so micro-organisms come to be colonized in the serous membranes. In the second place, the lymph vessels are so exceedingly abundant in all serous membranes

as to make of them veritable lymph sacs, whose delicate canalicular walls offer no obstacle to the rapid egress of migratory blood corpuscles, to say nothing of the infinitely more minute, and in some cases, more actively moving micro-organisms.

Whatever the explanation, the fact remains as long ago observed that all the infectious diseases are liable to be complicated by pericarditis. In former times it was the habit to refer this complication to differences in the chemical admixture of the blood, or to ferments in the blood. In our day the affections of the serous membranes are explained by the presence of schyzomycetes.

It is well known that the pericardium is not alike affected by all infections. Certain forms of them show distinct predilection for this structure, and so notoriously is this true of acute polyarticular arthritis, that it is, as has been stated, the habit of many practitioners to exclude pericarditis in its absence. It is undoubtedly true that acute joint rheumatism remains the most prominent factor in the etiology of pericarditis, that it causes, or better, is attended with more cases than any other one factor; Bamberger claims that 30 per cent., Chambers and Thompson 16 and 20 per cent. of cases arise from rheumatism; but it is equally true that there is no other acute infection which may not be followed by pericarditis.

If pericarditis is to occur in rheumatism, it shows itself by preference between the fourth and fourteenth days of the disease. While it is always a possibility in mild, brief or protracted cases, the rheumatisms marked by severity or fugacity are rather more liable to entail pericarditis. But it is the youth of the patient that is of all the most inviting or predisposing element. The young of all animals show much greater susceptibility than the old to all the mycoses.

It is not the intention to underestimate the role of rheumatism in the production of pericarditis, but to show cause for it, and more especially to emphasize the fact that almost any of the acute infections may act in the same way.

Next in frequency to acute joint rheumatism in the pathogeny of pericarditis comes pleurisy. Morgagni and Corvisart remarked this complication in their day. Duchek claims to have seen in 43 cases of fresh pericarditis an associate pleurisy 22 times; but inasmuch as the freshness or age of the pleurisy is not remarked, it is fair to infer that the order of sequence, in some of the cases at least, may have been reversed. In Bamberger's cases of pericarditis, 10.5 per cent. arose from pleurisy and pneumonia.

Tuberculosis affects the pericardium in both ways. That is the process may by contiguity inflame or a vomica open up the pericardium to produce the disease in a mechanical way. Or the micro-organisms of tuberculosis may lodge and multiply upon the serous surface, just as upon the cerebral meninges or tunica vaginalis, as conveyed thither in the lymph and blood supply. Bamberger's statistics show pericarditis in 14 per cent. of cases of pulmonary phthisis, but it is impossible to eliminate the role of pleurisy in any of these cases.

I can find no statistics declaring the relative frequency of pericarditis in the various acute infections, although it is stated in the history of nearly all of them that this complication does occur.

In pyæmia and septicæmia as typically represented in traumata and puerperal fever (so-called), pericarditis with its frequent associate endocarditis is the complication which directly or indirectly is the most frequent immediate cause of death. It occurs in all three forms of typhus, the exanthematic, recurrent, but most rarely in the abdominal form. Measles, scarlet fever and small-pox are attended with pericarditis occasionally only in the less severe, as a rule in the malignant form of these diseases. It is not very rare in cholera, and is quite common in epidemic dysentery along with or independent of the rheumatism which sometimes follows dysentery. In erysipelas, diphtheria, cerebro-spinal meningitis, pericarditis not infrequently constitutes the last link of the disease process. These are all diseases in which there is already either positive or strong presumptive evidence of mycotic origin.

But pericarditis may ensue upon even the lightest infections. Perhaps one of the most interesting statements that could be made in illustration of this fact is that of Bednar, who several times observed pericarditis supervene after vaccination. In one case an acute dermatitis developed in 24 hours after vaccination with a simultaneous pericarditis. In a second case, a sharp diarrhœa, subcutaneous abscesses and pericarditis proved the order of sequence. In a third case the pericarditis developed on the thirteenth day after vaccination without intervening disease.

In Bednar's 36 cases of pericarditis the disease was found independent of other demonstrable lesions only four times. Thirty of these cases occurred within the first month of life, four in the second, and one in the third and fourth months. In all cases the disease was attributable to puerperal processes in the mother which, in the author's words, "extended their injurious effects to the child, and in consequence of acute decomposition of the blood developed fibrinous or purulent exudations in various organs, and frequently in the pericardium. The disease proved fatal, as a rule, within the first 16 days of life."

Since the investigations of Klebs and Koester have shown of endocarditis that the mild, so-called acute or later verrucose forms, as well as the malignant or ulcerative forms, are of mycotic origin; that the difference is in degree, not in kind, and that micro-organisms can be demonstrated even though no source of immigration can be discovered, the nature of endocarditis seems well understood.

Endocarditis and pericarditis are very frequently found associate. The older clinicians speak of endo-pericarditis just as they speak of pleuro-pneumonia. It is therefore safe to infer, so far as it is safe to infer anything, that pericarditis, independent of the consecutive cases, is part of a general mycosis. The prophylaxis and treatment of the disease based upon what is known of its etiology, that is the rational or scientific treatment, calls for the antimycotics, cold and rest.

THE INFLUENCE OF CLIMATE ON THE TREATMENT OF CHRONIC CATARRH OF THE MIDDLE EAR.

BY JOHN F. FULTON, M.D., PH.D., PROFESSOR OF OPHTHALMOLOGY AND OTOLOGY OF THE MINNEAPOLIS MEDICAL COLLEGE.

[Read in Section of Ophthalmology, Otology and Laryngology of the American Medical Association, May 7, 1884.]

ST. PAUL, MINN.

While I cannot, from the nature of the subject, give anything in this paper that is new to the experienced aurist, I hope to elicit a discussion and by so doing obtain the views held by American aurists upon a subject of immense importance. A little more than three years ago, in a private conversation with Dr. Francis Atwood, he made the remark that cases of chronic catarrh of the middle ear improved rapidly under the influence of the Minnesota climate.

Dr. Atwood had a large practice and wide experience in treating this class of cases, extending over nine years of active work. He also had the opportunity to study the contrast in the results of treatment in a climate like that of Boston and that of Minnesota, and was deeply impressed with the far more encouraging results obtained in the latter climate.

Since that time I have been investigating the subject, and propose to give the results of the investigation in this paper.

In looking up the literature of the subject I find that but little has been written in regard to climate as a remedial agent in the treatment of this most distressing and obstinate disease. This is all the more surprising when we take into consideration the fact that nearly all the remedies known to therapeutics have been resorted to and have failed lamentably in the treatment of chronic otitis media. One remedy after another has been tried, only to be abandoned after having been tested by the great regulator—clinical experience. The importance of climate in the treatment of diseases of a similar nature in other organs on the one hand, and the very serious nature of the disease of which we speak on the other, will suggest at once the great practical interest of our subject.

For chronic non-suppurative diseases of the middle ear do not only constitute about one-half of the cases that we are called upon to treat in private practice (Roosa), but give rise to some of the most annoying symptoms that we are ever asked to relieve; which in their worst form are a constant source of terrible annoyance, leading the unfortunate victims sometimes to seek relief by suicide or by ending their days in an insane asylum. A disease which if neglected or maltreated and allowed to progress becomes as incurable as glaucoma absolutum or atrophy of the optic nerve.

These considerations impress upon us the importance of resorting to every possible means of getting control of the malady at the earliest possible stage, and putting the patient under the most favorable surroundings to obtain relief. However widely otologists may disagree as to certain factors in the treatment of chronic otitis media, there is a perfect unanimity of opinion among them that the most important part of the local treatment is stimulation, not only of the mucous membrane of the tympanum, but that of the Eustachian tube and posterior nares.

Even the most conservative make use of mild stimulants, such as hot steam, vapor of iodine, ether or chloroform. Although they may not agree with the more heroic, who resort to vapors of turpentine, sal ammoniac and acetic acid, or the still more heroic, who make use of inter-tympanic injections of solution caustic potash, caustic soda, chloral hydrate and the various astringents. Although most of these have been discarded by the intelligent aurist of the present day, yet the rational of the treatment remains the same, viz.: To stimulate the parts, tone up the relaxed tissues and blood-vessels, and encourage absorption of the exudative or inflammatory products. My own experience would indicate that these processes of repair receive valuable assistance in a cold and stimulating atmosphere in which there is a minimum amount of moisture.

Every otologist must have felt that after the membrani tympani has been forced into its proper position, and the hyperæmia of the drum cavity disposed of, the bands of adhesion broken up, or if possible divided, after the rigid and sclerosed condition of the parts has received the best possible attention, and the Eustachian tube has been made pervious to air, still there remains something to be done.

This is best accomplished, I think, by placing the patients under the most favorable climatic influence, it being the most powerful agency for the relief of this condition.

Dr. Pomeroy, in his most excellent and practical work (Diseases of the Ear), says: "A change of climate often relieves a hyperæmic condition of the tympanum in a few hours or days."

Politzer, probably the greatest living authority on diseases of the ear, says: "Change of air and residence in a mountainous country have a very favorable influence upon the course of chronic otitis media.

"In patients in whom the local treatment continued for months remained without results, I have observed pretty often a complete cure when they left the town and lived for several months in a mountainous region."

Certainly no higher authority could be referred to, nor stronger statement made, in regard to the efficacy of the climatic treatment of chronic otitis media. There is a wide difference of opinion among general practitioners as to which is the more favorable for phthisical patients—cold or warm climate. But the best authorities seem to agree, that prior to the stage of breaking down of tissue and the formation of cavities, such cases do better in a cold climate. And just so it is with the middle ear catarrhs. The non-suppurative forms of the trouble improve, but the suppurative cases do badly.

I have many cases on my note-book to show that patients suffering with chronic otitis media improve rapidly under the influence of our Minnesota and Dakota climate, but that cases of chronic suppuration become rapidly worse or extremely obstinate, but improve when sent to a milder and warmer climate.

When we are reminded that little or no dependence can be put in therapeutic agencies, and that all forms of treatment are highly unsatisfactory, and that the experience of the best aurists has proven that much good can be accomplished by a change of situation, it seems strange that it has not been more extensively resorted to. Perhaps one reason is the slow and tedious nature of the disease, it being difficult to get the patients to realize that it is necessary for them to make a business of getting well.

But what climate shall we select for these patients? If made hap-hazard without regard to the wants of the individual cases, more harm than good is likely to result.

This introduces the subject of humidity, altitude, temperature, ozone, duration and velocity of the winds and the country over which they blow, elevation above the level of the sea, sea voyages, atmospheric pressure, etc.

These are subjects which can only be hinted at here as they have not yet been studied in regard to their effect on aural troubles.

In order to show the assistance which our own climate gives in the treatment of chronic catarrh of the tympanum, I wish to analyze one hundred cases that I have treated, fifty of which were treated in St. Paul and fifty in Altoona, Pa. The average duration of the disease in the Altoona cases, four years; but of the St. Paul cases, five years.

The treatment was the same in both places, its average time in all cases here reported was three months.

In Altoona the number of cases cured were four; improved nine; and unimproved twenty-seven.

Of the St. Paul cases, eighteen were cured; twenty improved, and twelve unimproved.

What I mean by cured, is that the acuteness of hearing comes up nearly to a normal standard, and the subjective symptoms have disappeared. So the results obtained were vastly superior in Minnesota, and so far as I have been able to ascertain this has been the same experience as other otologists who have had the opportunity to study the effect of this most excellent climate on chronic otitis media. The season of the year in which these cases do best is from the first of Sept. to the latter part of Nov., during which time there are not so many sudden changes, and there is a combination of atmospheric conditions which render the climate as pleasant and exhilarating and bracing as can be found on the globe.

The most perfect sunshine, lasting for days and months during a favorable season gives rise to a sensation of stimulation that is the delight and astonishment of every new comer.

A number of cases have come under my observation, who have been vastly improved by the climate alone. One of the chief factors in bringing about these good results is the dryness of our atmosphere. It is a fact which needs no demonstration that the amount of humidity of any locality depends largely on the source of its winds, they being the great water distributors of the earth.

Minnesota is so situated that the winds that reach her are robbed of the greater part of their moisture; this is the case both in winter and summer. The prevailing winds of fall and winter are the returning trades from the Pacific Ocean which have lost their moisture on the different mountain ranges of the far west, having come to us over half the continent (Staples.) It is well to notice also in this connection the difference between the north and east winds of Minnesota and those of the Eastern States.

To the latter States these winds blow over the region of the Great Lakes, Hudson's Bay and the Atlantic Ocean; but these winds blow over a vast area of territory as large as all of the United States east of the Mississippi River before they reach Minnesota. And so with the southern winds of summer, while they have sufficient humidity to be essential to life and vegetation, they are not over-charged with moisture like the Eastern and Southern States. The absolute humidity per cubic foot at St. Paul is 0.92 grains; at Jacksonville, Fla., it is 3.81 grains, and at San Antonio, Texas, it is 3.51 grains; thus the humidity is three times greater in Florida.

Another source of benefit is the invigorating influence of the bracing tonic atmosphere that rapidly builds up the general health.

Dr. Jones, of St. Paul, who has made a faithful investigation and a special study of our climate, says: "There is an increased demand for food, and an increased ability to digest it.

"The power of assimulation being strengthened, there results as a natural consequence, an evolution of muscular, nervous and glandular force."

It can be easily understood how this, both directly and indirectly, exercises a most favorable influence upon the pathological condition of the middle ear caused by the chronic catarrh process, by stimulating the parts locally and by toning up the general health, assists in the absorption of the inflammatory products, and in restoring the delicate mucous membrane to a healthy condition.

The following case illustrates well the powerful assistance given by climate in the treatment of chronic aural catarrh.

The patient first came under my care in Altoona, Pa. He was twenty-four years of age and had been annoyed by the disease for five years.

He complained of constant tinnitus, a feeling of fulness in both ears and at times pains would radiate in different directions from the ears. At regular intervals he was much annoyed by vertigo and was extremely anxious to be relieved. He was also a victim of nasal catarrh of a severe type, the mucous membrane of his nose being very irrritable; when out driving it would swell up so as to completely obstruct nasal respiration. He had considerable trouble in following rapid conversation.

Both ear drums had lost their transparency, and presented the usual appearance so characteristic of chronic catarrh of the middle ear. They were some-

what sunken, and the handle and short process of the malleus quite prominent.

He could hear the watch only on contact; but bone conduction as tested by the tuning fork was good. This case was under treatment for about six months in Pennsylvania, with only negative results. At times it seemed as though some of the symptoms were relieved, only to return with increased severity.

Now this same case came under treatment again in St. Paul, and was submitted to the same treatment, but with far different result. The patient acknowledged marked improvement within a few days. He lost his sensation of fulness and ceased to be annoyed by the pain, and the attacks of vertigo were altogether removed.

That which was still more satisfactory, was the marked improvement in the acuteness of hearing, as attested by the watch and the voice.

This case shows to a remarkable degree what can be accomplished by a change of situation and the influence of a stimulating atmosphere in the treatment of this most obstinate and extremely annoying disease.

I have a number of other cases on my note-book who have been treated in other climates without receiving benefit, but who improved rapidly under the stimulating influence of the Minnesota climate. The best results, however, were obtained with those cases that had come recently from other countries, the cases which originated in our climate being the most obstinate. Another agency that may have some influence in bringing about these favorable issues is the electrical potential.

Unfortunately, no instruments have yet been devised to accurately record the relationship of this element to certain localities.

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS.

Iodide of Potassium in Pneumonia.—Dr. Luigi Gualdi, of Rome (*Lancet*) considers (with Schwarz) pneumonia not as a local disease with general symptoms, but as a general disease with local effects. He gives the iodide of potassium in forty-centigramme doses every two hours, at the same time applying the ice-bag over the seat of pulmonary inflamination. In thirty-nine cases in which he practiced this treatment he had excellent results. In all, without distinction, he observed that the sputum, from being viscid and tenacious, became, before the second day, fluid, resembling bloody serum; that with the cessation of the fever the exhaustion also ceased, although the physical state of the lung was not improved—nay, in some cases aggravated; and, finally, that in all the convalescents the appetite was so sharpened that the ordinary diet had to be considerably increased. The mortality was 6 per cent., while of the two who died one could not be included in the calculation, because, being affected with pneumonia of the apex with furious delirium, he took only two grammes of the iodide of potassium. It is worth remarking, continues Dr. Gualdi, that the fever and the exhaustion ceased, although the physical condition of the lung remained unchanged, thereby confirming Schwarz's position that the fever is independent of local alterations; also Jürgensen's contention that the cause of the exhaustion resides not in the change in the lung, but in the fever, seems to be similarly confirmed. Dr. Gualdi concludes that from his experience the treatment by the iodide succeeds better with the youth of either sex than with adults; that the iodide should be exhibited at the beginning of the disease, to insure an immediate and perfect result; that the iodide is efficacious over the fever and the exhaustion, but not over the localization, which latter indeed may even be extended under the treatment; that the iodine and potassium combined separate in the organism, so that each has its special virtue; and, finally, that the action of the ice is secondary, inasmuch as it operates on the effects, and not on the cause of the disease. It is useful in the congestive stage, hurtful when the contents of the air-cells aré already solidified and the lung indurated.

Action of Certain Medicines on the Cerebral Circulation.—Curci (*lo Sperimentale, Italia Medica, Jour. de Med.*) employs an experimental method, based on the estimation of the increase or diminution of the cerebral mass, as influenced by the amount of blood flowing through its vessels; if a certain medicine produces an augmentation, it is considered as producing hyperæmia, and the contrary if a diminution.

The cranium of the animal being trephined and the brain exposed, a canula of the same diameter, and open at the two extremities, is introduced into the perforation. The free extremity is connected with a tube, which is in turn connected with a manometer of water. The whole of the apparatus must be hermetically closed and filled with fluid—the manometer with colored water, the rest, and especially the canula, with oil. The advantage of the oil is that while it bathes directly the surface of the brain, it is not absorbed, and consequently does not diminish in quantity, which eliminates a chance for error. The manometer tube is only 3 millimetres, which renders the changes in its level the more appreciable.

It is necessary to bear in mind the fact that the efforts of the animal will of themselves influence the level of the fluid, and by patience wait until the animal becomes calm before beginning the experiments, as calmatives cannot be given.

Chloroform and ether produce a relative anæmia of the brain.

Hydrate of chloral was found to produce weaker cerebral pulsations than normal, the author considering that the blood pressure in the longitudinal sinus descended considerably under its influence. Consequently, if the diminution of the cerebral mass on the one hand, and the lowering of venous tension on the other, be considered, it follows that the blood flow diminishes, and that there is a certain degree of cerebral anæmia.

Paraldehyde. This new drug gave results identical with those of chloral, viz., diminution of the cere-

bral mass, from which was deduced a diminution in the flow of blood to the brain, and consequently relative anæmia.

Therefore, chloral and paraldehyde are indicated as hypnotics in all cases where there is hyperæmia or inflammation of the brain, but their use is not justified in degeneration, atrophy, etc.

Nitrite of amyl produced a considerable increase in the cerebral pulsations, and its use in syncopes and cerebral anæmia is, consequently, justifiable.

Morphine produced an augmentation of cerebral volume and vascular tension, and is, consequently, a hyperæmiant.

Atropine produced such contradictory results as to render any positive conclusion difficult, but in a large dose a constriction of the vessels was observed, and the brain became pale and diminished in size, so that the drug was considered as an anæmiant of the brain.

Quinine had more of a tendency to produce anæmia than hyperæmia of the brain. It counteracts the hyperæmic action of morphine. Therefore, quinine is not contra-indicated in those diseases liable to cerebral hyperæmia, but its use, on the contrary, is justifiable. Quinine has been found useful in insolation, probably from its tendency to counteract hyperæmia.

MEDICINE.

ON A LITTLE KNOWN SYMPTOM OF SCIATICA.—Beurmann (*Archives de Physiologie Normale et Pathologique*) draws attention to a sign which is not noticed in the classical description of sciatica, which is readily recognized by the bed-side of the patient, and which is sometimes of very considerable diagnostic value.

The patient is made to lie in his bed on his back, and is told to allow the affected leg to lie perfectly passive. If now, with the leg fully extended, the physician flexes it at the hip, the patient at once experiences acute pain, darting down the course of the nerve from the buttock downwards, and which is most severely felt in the neighborhood of the great trochanter. If, however, the leg be first flexed upon the thigh before the thigh is flexed upon the abdomen, it will be found that no such pain results from the movement.

It would seem that this pain is due to tension of the sciatic nerve, which, with the first of these movements, is considerable, but which does not take place with the second.

That this hypothesis is correct, Beurmann abundantly proves by various experiments which he conducted on the dead subject.

This sign of sciatica appears to possess very considerable diagnostic value, and will probably suffice at once to distinguish sciatica from several conditions, which may simulate it, such as crural neuralgia, hip-joint disease, etc.—*Edinburgh Clinical Journal.*

ON PEPTONURIA.—M. Ch. E. Noury has written a thesis on this subject, the review of which in the *Annales des Maladies des Organes Genito-Urinaires*, in which he gives 1, the history of the subject; 2, a description of the principal methods used for determining the presence of peptones in the urine; 3, an examination of the pathological conditions coexisting with peptonuria; and 4, the pathogenic interpretation of this symptom and its clinical importance. He arrives at the following conclusions:

1. The peptone is found in the urine of certain patients. Among the methods used to determine its presence, those given by Hofmeister are the only reliable ones. (Precipitation by alcohol, tannic acid, and phosphotungstic acid).

2. Peptonuria is found in two distinct groups of diseases: one local (pleurisy, chronic catarrh of the bronchi), the other general (scorbutis, phosphorus poisoning, etc.)

3. In the local affections, peptonuria is associated with the resorption of an exudation rich in cellular elements.

4. In these cases, the conditions which influence the appearance, the progress, the abundance and the duration of peptonuria are connected on the one hand with the exudation itself (its abundance, richness in globules, disorganization and the more or less rapid reabsorption of these same globules), and on the other hand with the condition of the walls which enclose it, (extent of surface, permeability, duration of the affection).

5. In the general affections, the peptonuria seems to be connected with a disorganization *en masse* of the leucocytes.

6. In all cases, it is independent of albuminuria as well as the state of the temperature of the body.

7. Peptonuria suffices, in many affections, to account for certain clinical episodes; but its application to diagnosis is of value only in certain extremely restricted circumstances.

ON THE ELIMINATION OF MERCURY BY THE KIDNEYS.—Dr. Schuster (*Centralblatt f. die Med. Wissensch., Journal de Med.*) declares that the elimination of mercury takes place not only by the intestine, but also by the kidneys. It seems that this has heretofore been overlooked, owing to the want of use of proper reagents to detect mercury in the urine. Urine acidulated by hydrochloric acid and submitted to a current of sulphuretted hydrogen and then allowed to stand for twenty-four hours, will give a sediment containing sulphate of mercury, uric acid, mucus, etc. It is separated by filtration, and the sediment which remains in the filter, is treated with nitromuriatic acid and then dried until it no longer gives off the nitric acid vapors. The residue is dissolved in about 10 grammes of water, and, after being slightly acidulated, is treated according to the ordinary method of Fürbringer. By this method it is possible to detect $^1/_{10}$ of a milligramme of mercury in the urine.

The excretion of mercury after an ordinary treatment by friction continues for six months.

SCLEROSIS OF CARDIAC ORIGIN.—Dr. Jules Boy (*Marseille Medical, Journal de Médecine*) tells us:

1. That while we have a cardiac hepatic and cardiac renal sclerosis, we have also a cardiac pulmonary sclerosis.

2. That this pulmonary sclerosis is systematic and corresponds exactly to the changes found in the liver and kidney.

3. Diffused points of sclerosis are found, scattered throughout the parenchyma and accidentally produced.

4. This cirrhosis is characterized by a thickening of the peri and intra-lobular tissue, the thickening of the inter-alveolar partitions progressing so far as sometimes to obliterate the alveoli, by the dilatation of the vascular system with thickening of the tunica adventitia of the vessels, and by the constant presence of arterial lesions.

5. The principal changes are the stasis of blood and permanent dilatation of the vessels, a condition of the epithelium similar to Charcot's visceral epithelial cirrhoses, in the arterial system and in the dyscrasia.

Rupture of an Aneurism of the Cystic Artery into the Gall Bladder.—Chiari (*Journ. de Med.*) gives the case of a man 33 years of age, who suffered for a long time from cardialgia, and died suddenly with intestinal hæmorrhage. At the autopsy a perforation of the superior portion of the duodenum was found, which communicated with the gall bladder by a sort of crossway bounded by the liver, the epiploon and the duodenum itself. The gall bladder contained some calculi and blood; on its hepatic wall there was a small aneurismal tumor 2 centimeters long, and 1 broad, that communicated with its cavity by a slit of 3 millimeters (superior cystic artery). A smaller bloody tumor, which was the seat of a thrombosis, was situated lower down on the gall bladder (inferior cystic artery). Medical literature mentions only four cases of rupture of aneurism of the hepatic artery into the bile passages.

A Pulmonary Cavity Healed by Injections of Nitrate of Silver.—In *El Siglio Medical* is recorded the case of a peasant of 26 years who contracted a pneumonia which passed into a chronic state and produced a purulent expectoration and an extreme emaciation. Dr. Maragliano determined the presence of a cavity at the base of the right lung. Judging all other medication to be useless he injected a gramme of nitrate of silver, dissolved in 25 grammes of distilled water. The pain was very acute for two hours, and then disappeared; the frequency of the pulse and the fever diminished. The expectoration increased for several days, but then diminished progressively and recovered its normal characteristics. One year later the cicatrization of the cavity was complete. A second case was similarly treated at Madrid, but with an unfavorable result.—*Journal de Mèdecine.*

Experimental Researches on the Injection of Medicines into the Pulmonary Tissue.—Frankel (*Deutsch. Med. Wochenschrift*), seems from his experiments to have determined the fact of great tolerance on the part of the lung to various irritating agents. He used solutions of 2 to 5 p. c. of acetate of alumina, 1 to 5 p. c. of carbolic acid, 5 p. c. of iodoform. The injections were made sometimes many times a day, sometimes at intervals of several days. Generally no functional reaction followed, in some exceptional cases there were paroxysms of coughing, but only when a bronchus was pierced, for the toleration of the pleura and parenchyma was complete. Anatomically there was found in the pleural cavity a coffee spoon full of blood, the pulmonary parenchyma being infiltrated with blood to the thickness of 1 centimeter; this being reabsorbed or undergoing a retrogression resulting in the formation of a slight cicatrix. The author considers that the results of these experiments would seem to authorize the employment of medical injections in phthisis where the process is localized and accessible; the diseased tissue undergoes a substitutive modification before hastening the work of cicatrization; in the neighborhood of deposits, a cicatricial zone is created which forms a rampart against the invasion of the process.

The Cost of Sickness.—I think, then, that we can not escape from the reasons to believe that we lose in England and Wales, every year, in consequence of sickness, 20,000,000 weeks' work; or, say, as much work as 20,000,000 healthy people would do in a week.

The number is not easily grasped by the mind. It is equal to about one-fortieth part of the work done in each year by the whole population between 15 and 65 years old. Or, try to think of it in money. Rather more than half of it is lost by those whom the registrar-general names the domestic, the agricultural, and the industrial classes. There are more than 7,500,000 in number, and they lose about 11,000,000 weeks; say, for easy reckoning, at £1 a week; and here is a loss of $11,000,000 sterling from what should be the annual wealth of the country. For the other classes, who are estimated as losing the other 9,000,000 weeks' work, it would be hard and unfair to make a guess in any known coin; for these include our great merchants, our judges and lawyers, and medical men, our statesmen, and chief legislators; they include our poets and writers of all kinds, musicians, painters, and philosophers; and our princes, who certainly do more for the wealth and welfare of the country than can be told in money.—*Sir James Paget, in Popular Science Monthly.*

EXIT OF SCIENTISTS FROM MONTREAL.

Montreal, Canada, Sept. 4.—Two special trains left this morning, one having on board 300 British scientists bound for Philadelphia to attend the American Association meeting, and the other 200 scientists for the Rocky mountains. The presence of so large a number of eminent scientific men from Great Britain will add much to the interest of the meeting of the American Association for the Advancement of Science, now in session in Philadelphia.

THE

Journal of American Medical Association.

PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE..... $5,00.
SINGLE COPIES..... 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY, SEPTEMBER 6, 1884.

HASTY GENERALIZATIONS.—Of all the faults that characterize medical literature, those arising from hasty generalizations, by which we mean the deduction of conclusions from an insufficient number or an inadequate verification of facts, are the most prominent, and constitute the greatest hindrances to real progress in nearly all the departments of medical science.

Next in baneful influence is the adoption and treatment of mere opinions or even suggestions, as though they were actual facts. From the simple facts that the elements of our food may be arranged, chemically, into nitrogenous and carbonaceous, and that the latter out of the living body are capable of uniting with oxygen and evolving heat, a Liebig announces the opinion that the nitrogenous elements of food are appropriated to the repair of the living tissues, and the carbonaceous to combustion and the support of temperature. Straightway this opinion is accepted, incorporated into our medical literature, and acted upon as implicitly and universally as though it had been the announcement of a clearly demonstrated fact. And yet it would puzzle the most erudite, even at this late day, to point out any facts which prove that the two classes of alimentary elements play any such separate role in the living body as has been assigned to them.

Cases of an epidemic disease make their appearance in a given locality, and instead of patiently waiting until their origin, or at least all the ascertainable facts connected therewith, can be carefully investigated and placed on record, every writer and speaker at once *suggests* an origin which will suit his preconceived theories concerning the nature of the disease, often entirely regardless of all the actual facts in the case. And yet these naked suggestions are accepted, incorporated with the history of the epidemic in medical journals, and ultimately quoted in standard works, invested with all the attributes of established facts of science. The appearance of the present cholera epidemic in Toulon affords a good example of the practice we are deprecating. When the outbreak was first announced, it was represented as having started in the oldest, most filthy part of the city, and among the most destitute and unsanitary part of the population. Not a word was said about its connection with ships or sailors from any quarter. Next, however, it was stated to have been brought in some naval vessel from Tonquin or some port of China. But no facts were given to show that the accused vessel had actually come from a place where cholera was prevailing, or that any cases had occurred on board, either before her arrival or afterwards. Next, Dr. Koch is reported as making the rather ungracious remark that it was introduced by some English vessel whose officers had falsified her bill of health. And finally, we have the positive and circumstantial report that the two first cases at Toulon, occurred in marines who had been employed in removing some materials or rubbish from an old hulk in the harbor which had lain undisturbed since the return from the siege of Sebastopol in 1856; it being presumed that the germs of the disease had been slumbering there in undisturbed concealement during all the intervening twenty-eight years. And yet since the first *suggestion* concerning the importation of the disease on some ship, almost every writer, both in the secular and medical press, has assumed that such importation took place with as much positiveness, as if each step in the process had been fully identified by actual investigation of all the facts bearing on the case.

In the natural order of events these *assumptions* in the present current literature will be quoted as facts by the historians and investigators of the next generation. Again Dr. Koch, after finding a number of microbes of different varieties in the intestines and intestinal dejections of cholera patients, selects one which he suggests, after a limited number of post-mortem examinations, is peculiar to and causative of the disease. His suggestion that this particular comma bacillus or spirillum is *always* present in the intestines of epidemic cholera patients, and not in those of patients affected with any other form of disease, is accepted by a large part of the profession

with as much apparent confidence as though it had been possible for Dr. Koch, or any other one man, since he first entered upon his cholera investigations in Egypt little more than one year since, to have examined not only an adequate number of cases of cholera, but also of such number and variety of other diseases, as to justify both the positive and negative part of his suggestion. The finding of a particular microbe in the intestines of one hundred consecutive cases of epidemic cholera, would go far to prove that such microbe was always present in that form of disease, not necessarily as a cause, but certainly as an accompaniment.

But to assert that the same microbe is found in no other form of disease, presumes a scope of actual post-mortem and microscopical investigation that would occupy one man nearer a life-time than the short space of a single year.

Indeed such investigations can never conduct us to actually reliable results until they have been repeated by numerous qualified observers, in several epidemics, in different localities, and also in a wide circle of collateral diseases.

We do not disparage, but honor Dr. Koch and all other skillful investigators in the different departments of science; but we are getting well-nigh weary with half a century of experience in the process of unlearning one year what we thought we had learned the year previous, and of seeing the time of one-half of the world's investigators consumed in disproving and correcting the too hasty deductions of the other half. Our professional and scientific investigators, and indeed the whole profession, need more industry in the observance and aggregation of facts, more logical study of their relations when aggregated, and far more patience and caution in the deduction of important conclusions which are to influence both our dealings with disease at the bed-side of the sick, and guide our efforts to afford sanitary protection to communities and nations.

INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN.—At the recent meeting of this great international organization, there appears to have been present a very fair representation from the profession of our country. Among them were several who read papers in some of the Sections. In the Section of General Pathology and Pathological Anatomy, Dr. Samuel N. Nelson presented a paper on the "Cultures of the Micrococcus of Diphtheria;" in the Section of Medicine, Prof. Austin Flint, of New York, had a communication "On a Uniform Nomenclature of Auscultatory Sounds in the Diagnosis of Diseases of the Chest;" in the Section of Surgery, Prof. Sayre, of New York, demonstrated the application of the plaster jacket in the treatment of diseases and deformities of the spine; in the Section of Obstetrics and Gynæcology was announced a paper "On a New Operation for the Restoration of the Ruptured Perinæum," by Dr. Henry O. Marcy, of Boston; in that of Ophthalmology, a paper on Ocular Therapeutics, by Dr. W. Seely, of Cincinnati; in that of Laryngology, a paper on the Prognostic Significance of the Several Local Manifestations Observed in Tuberculosis of the Larynx, by Dr. Solis Cohen, of Philadelphia; one on the Operative Removal of Foreign Bodies and Pseudoplasms from the Air-Passages, by Dr. Lefferts, of New York, and another on the Proper Method of Training of the Singing Voice, by Dr. Bosworth, of New York; in the Section of Otology, a paper on the Diagnosis of Inter-Cranial Complications in Suppurative Inflammation of the Middle-Ear, by Dr. Orme-Green, of Boston; and in the Section of Dermatology and Syphilis, a paper on New Methods and Remedies in the Treatment of Diseases of the Skin, by Dr. J. V. Shoemaker, of Philadelphia.

An abstract of the last paper may be found in another part of this number of the JOURNAL. The principal languages used in the papers and discussions were the French, German and English. A brief account of the general scientific and social features of the assemblage will be found under the head of Foreign Correspondence.

YELLOW FEVER.—This justly dreaded disease continues to prevail severely in several places in Mexico, Central America, and the West Indies, but thus far appears to have become prevalent in no part of our own country. Its position in Mexico is such as to create constant apprehension in the adjoining parts of Texas. The case that occurred in one of the ports of Florida has been followed by no others, and the same result has followed the reported cases at other ports.

PROGRESS OF THE CHOLERA IN EUROPE.—During the last week the epidemic appears to have increased more rapidly than before, and is now prevailing not only in the south part of France, but in many parts of Italy and Spain. Its progress northward, however, is slow.

THE American Public Health Association holds its next annual meeting in St. Louis, Mo., commencing October 14, and continuing to the 17th, 1884.

THE American Pharmaceutical Association has just closed a well attended and interesting annual meeting in Milwaukee, Wis. The following officers were elected for the ensuing year: President, Henry Conning, of Boston; Vice-Presidents, Lucius Lybrand, Nobleville, Ind.; J. B. Bond, Little Rock, Ark.; Charles A. Heinitsch, Lancaster, Pa.; Secretary, J. W. Colcord, Lynn, Mass.; Treasurer, J. D. Wells, of Cincinnati, Ohio.

DEATHS.—Charles Walter Chamberlain, M.D., of Hartford, Conn., Secretary of the Connecticut State Board of Health, died on the 21st of August, 1884, aged 40 years.

Dr. Grafton Tyler, of Georgetown, one of the oldest and most popular physicians in the District of Columbia, died on the 26th of August, 1884.

THE Medical Association of the Mississippi Valley holds its next anniversary meeting in Springfield, Ill., commencing on Tuesday, Sept. 23, 1884. This organization was formerly known as the Tri-State Medical Society. Let all interested remember that the time of meeting is near at hand.

THE British Association for the Advancement of Science has just closed an apparently profitable and satisfactory annual meeting in Montreal, Canada. Many important papers were read and discussed, and the social arrangements were pleasant and well executed.

SOCIETY PROCEEDINGS.

BOSTON GYNÆCOLOGICAL SOCIETY

REGULAR MARCH MEETING—H. O. MARCY, M.D., PRESIDENT, IN THE CHAIR; HENRY M. FIELD, M.D., SECRETARY.

The report of last meeting having been read and approved, Dr. Field remarked upon the extraordinary contrast presented by eclampsia puerp. in women and in the cow as determined by three statements in Dr. Billing's paper (V. Febr. session); to the effect that (1) associated with the convulsions or their representative in the cow was an exceptionally contractile state of the uterus; that (2) the disease seldom appeared till after the expulsion of the secundines; and (3) that it seldom accompanied first parturitions or later deliveries but was apt to attend the third, fourth, or fifth in contradistinction with the first or second, or with the seventh or eighth. All this is surely quite different from what we are accustomed to observe in the human female.

The committee appointed for the purpose presented resolutions upon the death of Professor Ercolani, of Bologna, an honorary member of the society, which, having been accepted, the Secretary was instructed to have properly written out and forwarded to the family of the deceased.

H. C. White, M.D., presented a communication on the subject of a New Method in the Treatment of Recto-vaginal Fistula.

Patient, a female, was aet. 26 years, and had had two children of, respectively, 26 and 10 mos. Herself one of two children, her mother and brother died early of consumption. When 16 years of age, she was thrown from a horse, leaving a permanent weakness low down in the back, and a tendency to discharge, which was believed to be leucorrhœal. A year later had a small abscess on left vulva, leaving ever after occasional attacks of soreness in that locality. During her first pregnancy, when about 21, had two abscesses in perineal region, which were left to take care of themselves under homœopathic supervision. A second pregnancy followed closely on the first, and soon after its inception patient began to suffer seriously in the perinæal region. Dr. W., having been called in, found a fistula discharging from the left labium, accompanied by a great amount of inflammation. Her condition and suffering prevented a further examination at that time. Discharge continued constantly up, and subsequent to the birth of the child. Babe was weaned at eight months, and two months later an operation was performed, which was done in January last by Dr. Marcy, assisted by Drs. White and Nelson.

The perinæal body was found to be small and contracted by a considerable laceration at childbirth. The opening in the labium was found to communicate with two sinuses in the rectum, 1½ to 2½ inches long, respectively. After the fistulæ had been cut through, completely dissecting the sphincter inside and opening far up into the rectum, the canal of the fistulæ and sinuses was removed, the membrane being carefully dissected out with scissors. The skin was then dissected back from the right side of the perinæum, the mucous membrane of the rectum was carefully brought together at the line of its division, with the over and over stitch—a fine tendon suture being used—and the cut surfaces were brought into apposition and secured by the perinæal pins devised by Dr. M. for operations for laceration of the perinæum. Very slight increase of temperature followed the operation. The pins were removed after eight days, and patient made a good recovery. Wound now (March 10), well healed, sphincter well contracted—has had no trouble in retaining her fæces; has gained in flesh. There are now no symptoms of any fistula.

At the close of Dr. White's communication, Dr. Marcy made brief remarks in farther explanation of the operation and called upon Dr. Pines, present by invitation, for an expression of his opinion; who said, in effect, that the operative procedure, was a new thing in his experience.

Dr. Marcy hereupon read a paper upon *The Relations of Micro-organisms to Surgery*. He first gave a

careful review of the evidence upon which the belief was founded of the deleterious effects of germs upon wounds and, through them, upon the general organism. He stated that much remained unsettled, and that many questions of great importance were still in active discussion. However, it was beyond dispute that sufficient had been determined in a positive manner, so that we may no longer doubt the fundamental basis of truth from which the modern system of wound treatment had been evolved.

The criticisms of abstract theory and practice are no longer pertinent with its objectors, and something more absolute and tangible must be advanced in argument from the other side. Anything may be doubted. There are many who would not accept the demonstration of any historic fact, and every mathematical formulation or axiomatic truth would by some be questioned.

The discussion of what constitutes a poison to wounds was entered upon, and the various exposures detailed to which open wounds are liable. Accepted that a subcutaneous wound, without necrosis of tissue, was the condition most favorable to repair, the comparison therewith of other wounds, in various conditions, was made, and the factors detrimental to repair were analyzed and compared. The most important indication in wound-treatment is to secure an aseptic condition, which may be defined as a wound surgically clean.

The individual, vital force must ever be the first factor in consideration; and this is variously modified by conditions extraneous, such as race, age, idiosyncrasies, mental state, constitutional conditions, disease, surroundings, etc. The bioplastic force, however denominated, is the force to be relied upon in restoring the equilibrium in the injured organism. Good sanitation aids in the recuperation of this power.

All this has long been known by the surgeons of past generations, and more or less effectually they have armed to secure these desiderata. The enunciation of the particulate theory of fermentation was the first step in advance and, upon its demonstration, a great revolution in the treatment of wounds began which has already given most brilliant results, and the farther promise of greater good than any innovation since medicine became an art.

The Greek word σέπτικος signifies that which causes putrefaction, and, per consequence, antiseptic can have but one meaning, viz.: that which is directed against the cause, not the effect, of putrefaction. Granting that putrefaction cannot occur without fermentation and that fermentation is brought about by the growth of the spore-producing plants, it is a simple thing to formulate the role of micro-organisms and to trace to them, as the *causa causans* many of the most deleterious results incident to wounds.

Defects of bioplastic power, both constitutional and local, result in disorders of repair; defects of apposition prolong the process and make extra demands for reparative material; but, in defects of protection, are found the conditions which produce arrest of reproduction and destruction of the adjacent tissues. The disturbing elements, arising from atmospheric contact, come only from the organic, living particles held in suspension.

The forms of germs which produce fermentation may be classified under three general types; viz.: the micrococcus, the bacterium and the yeast-cell. Only the first two are important in their relation to wounds. Both these forms are generally found in open wounds. With micrococci alone, decomposition proceeds without odor. The reproduction of bacilli is accompanied with odor more or less fœtid; bacilli are comparatively easy of destruction. The question of pathogenic germs of greatly varying types is one still *sub judice*.

Experimental proof is constantly accumulating to show that the inflammatory and other changes, which ensue in wounds, are, with few exceptions, the result of the vital activity of new organisms. There is abundant evidence to show the extreme probability, at least, that septicæmia and pyæmia are one and the same disease, and that their sole and invariable cause is due to micrococcus poisoning.

The superficial opinion of many physicians, who are daily engaged in the treatment of wounds in the time-honored manner of their fathers, is to the effect that Listerism and antiseptic surgery consists only in the application of carbolic acid to a wound, in the form of spray or otherwise, while they are still in ignorance of the broad, scientific, fundumental knowledge upon which the modern methods of wound-treatment are based.

Dr. Martin opened the discussion which followed Dr. Marcy's paper. He would first call attention to the fact that the so-called antiseptic agents used in Listerian dressings were not germicidal, and, therefore, can have no effect upon the bacteria which may be present in the wound. He objected to the reasoning that because the results of work in accordance with a theory are better than results formerly obtained, therefore the theory is correct. He thought many physicians still used carbolic acid because they were afraid to oppose the accepted practice.

Dr. Nelson called attention to and explained the elaborate experiments carried out by Dr. Marcy and himself in demonstrating the efficiency of germicides.

Dr. H. C. White said he had been lately treating certain diseases, such as typhoid fever and scarlatina, with sulphurous acid, assuming that they were due to germs, and had been much pleased with results.

Dr. Martin objected that germs existed in the body *de novo*, and that sulphurous acid could have no power to destroy them in the tissues. If a piece of healthy lung tissue was rapidly removed from an animal and at once dropped into boiling oil, so as to form an impervious coating, bacteria would still be found in its interior.

Dr. Marcy, in reply, did not admit that bacteria existed in healthy living tissues. Was not able to explain the existence of bacteria in cysts. Cited the case of rupture of a cyst of size of a walnut into the abdominal cavity, and death in thirty-six hours. The fluid in the peritoneal cavity was found to be swarming with bacteria. Believed that death was due to the rapid multiplication of germs introduced into the system from the cyst. Dermoid cysts are full of bac-

teria, and these, when let loose by opening the cyst, are a source of great danger. This danger lies in the absorption by the newly-cut surface, not by the walls of the cyst. Bacteria are a cause of decomposition, not a result.

Dr. Martin insisted that two things had ruined the profession, viz., theory and reasoning from analogy. Because of observations in two diseases—one of which we produce ourselves, *i. e.*, in charbon and vaccinia —we have jumped to the conclusion that every disease is referable to a germ. In three years more as much will be claimed of cancer as it is already in respect of diabetes. Within fifty years the Listerian theory will be an exploded delusion; this he had been accustomed to say, but since he had seen Prof. Lister himself and his methods, he had reduced the period to twenty-five years.

As he had stated on previous occasions, he had punctured the knee-joint nearly 600 times, with no trouble whatever, and yet he had never used antiseptics. Dr. Mary P. Jacobi had lately written on the fatality of opening a dermoid cyst by aspiration, and this notwithstanding every precaution taken in antisepsis. "I say," continued Dr. M., "if these cysts had been punctured with a clean needle, untouched by caustic fluid, better results would have followed."

Furthermore, carbolic acid, as used, cannot do any harm to the germ. Would ask, In what way do bacteria do harm? Is it by their local presence or their presence in the circulation? Unquestionably, in the latter way; and if this is so, what good can a little rag do, wet in carbolic acid and applied to the wound? What infinite harm will this powerful agent do, if introduced into the general circulation in sufficient quantity and potency to destroy the germs therein disseminated. Take as an example operations upon the rectum. Dr. M. had never in his experience had a fatal case. It is well known that in this region abscesses form which are likely to lead to fistulæ. When first opened they are horribly putrid, but after free discharge has taken place all putridity ceases. He would ask for an explanation of this fact, in accordance with the principles professed by the author of the paper.

Only the other day he had opened a large perinephritic abscess. The smell at first was simply horrible. He threw in hot water in liberal quantities to the evacuated cavity, and in 24 hours all foul odor had left the discharge. The thousands of wounds that have been made by paracentesis of various cavities; the millions of wounds of all kinds made every day — what of these! Why do not they admit the bacilli? They are even more open to them than is the surface of an amputated thigh, because the latter is protected from the first with various wrappings and bandages. Whether we cover with cotton or with carbolized cotton, we shall find that the result is the same.

The Germans and Scotch, beyond all other people, have crowded our literature and art with wild theory, and with results which, while they show great intellect and labor, are too often of but slight practical value. They are great students and investigators. A moment's reflection upon the history of medicine will prove this to be true. Those who have had the great pleasure to meet and converse with Mr., now Sir Joseph, Lister, are well aware that in him the Scotch theatric, metaphysical element is by no means lacking. To his keen, shrewd, untiring observation, perseverance and common sense we owe an immense advance in surgical methods, the redemption of surgical practice in hospitals from the charges which Sir Jas. Y. Simpson brought against it, we all know how justly.

"I make no objection," continued Dr. M., "to the *Listerian method.* What there may be of redundancy, of superfluity, of actual danger to the surgeon as well as patient, in its connection will slowly but surely cure itself. And, indeed, Sir Joseph's practical abandonment of the spray is proof of this." Most that is valuable has come to us through the attempt to vindicate in practice the truth of theory. If the success of the complicated system termed the "Listerian method," is, as Sir Joseph claims it is, proof positive of the truth of the theory, then it is very important that it should be proved, as it most surely has not yet been. If, as I maintain, the success of the Listerian practice is no proof whatever of the truth of the theory of germs and germicides, it is most important it should be known. *Palmam qui meruit ferat!* On Mr. L's instantly evolved theory there was builded a system in one night, as it were.

From Germany and Scotland have come the greatest number of wild theories, and also of solid results of close, intelligent and laborious investigation and study in our art. From the Teutonic race have come the theories of Stahl, of Hahnemann, of Sylvius, of Paracelsus, as well as the admirable researches of Rudolph, of Haller, of Virchow. From Scotland, we have the theories of Cullen, of Brown, and we have, too, the results of the wonderful genius and labor of the two Hunters, of Ferguson, of Brodie, and of a host of others. Those who have had the great favor and benefit of meeting Sir Joseph Lister in person know very well that with all his merit as a practical surgeon, the metaphysical, theoretical element is by no means lacking in his temperament. To that we owe his invention and advocacy of germs and germicides; to his sound, practical Scottish sagacity and common sense we owe the great and invaluable improvement he has made in surgical methods. Whether I am right in this or not, Sir J. Lister certainly evolved the germ theory, as applied to purely surgical disease, in the quiet of his study with Pasteur's book open before him. Like the fully armed Minerva from the brain of Jupiter; like the theory of Hahnemann in his poor garret study with a volume of Cullen's Materia Medica on his desk; like the German students' camel; like Carlyle's Kubla Khan, in waking from a sleep into which he had fallen over *Purdias his Pilgrimage* on his knee; like all such things, this thing was evolved from the inner consciousness of the inventor, and in a night, as it were. Mr. L. has had many bad results, but they were not allowed to appear in his wards.

Dr. M. again alluded to the problem he had recently proposed in respect of the period in which decomposing animal matter is capable of communicating disease, such material being innocuous before

and after; speaking on this subject in some detail, and would again demand, as he had demanded before, how such facts can consist with the Listerian theory. Again, in dissection wounds, the fatal symptoms do not take nine days in which to show themselves, the case is distinctly declared at the end of forty-eight hours. The horribly smelling pus of abscesses formed in recondite parts of the body, with which all are familiar—what has the germ theory and Listerism to do with this? It is said that it is the germ in the interior of the body that does the harm, and this I know, continued Dr. M.—but to reach and destroy the bacteria in the interior of the body it will take a dose of the latest fashionable disinfectant, corros. sublimate, that will kill the patient too.

Lister began by excluding drainage, but now he is the most exact and rigid man, in respect of drainage, that lives; just here he shows that he is an admirable surgeon. Here, as also in winding a strangulating bandage about the stump, he has done a great deal of good. He has reformed the entire system of surgery, as said before, but not one iota of credit belongs to his germs or to the theories he has built upon them!

Dr. Pines, upon call, thanked the Chair for invitation to be present at the hearing of a subject of so great interest as that presented both by the paper of the day and by Dr. Martin's remarks upon the same. Dr. M. had shown himself pervaded by that philosophic scepticism which the Germans say lies at the foundation of all science. In his own practice of forty years, he had learned to be sceptical both in the use of new remedies and as respects adherence to new methods. Could well remember he was accustomed to observe, full thirty years ago, that wounds that were cared for in a cleanly way were pretty sure to do well. We did not hear of septicæmia then as now, and it may well be that this comparatively new condition has become a bug-bear with the profession for which we are disposed to seek out new remedies. It used to be the general opinion that the best method with abscesses was to open freely to the air, letting nature have her way outward, and I do not remember that, thus doing, we used to have serious trouble from germ poisoning.

Dr. P. continued to the effect that when Listerism was first brought forward he recognized the fact that it would at least secure a superior degree of cleanliness in wound-treatment; and he had seen that those who follow this method are steadily diminishing the amount of carbolic acid they use, until its strength in their washings and lotions begins to approach homœopathic potency. In one word, we have been brought to the perfection of surgical cleanliness.

Dr. Martin recalled the vast number of men, during the late war, brought into division hospitals with various wounds, already suppurating and pullulating with maggots; but these subjects did remarkably well, certainly before they were put into the hospital and sometimes afterward. Perhaps the maggots served as germicides,—assuredly the soldier had no other protection against the germs about which we hear so much to-day.

Upon call for pathological specimens, Vice-President Norris took the chair, and Dr. Marcy exhibited a multilocular ovarian cyst which he had removed four days previously. Patient æt. 52 years. Menses ceased six years before. Had noticed a lump in left side seven years before, but it had not been troublesome till about six months ago. Since then had suffered much pain, but general health was good. Considerable amount of ascitic fluid. Cyst, 9 lbs. in weight, was everywhere adherent, to parietes, to omentum, and in some places to the intestine.

Several of the cysts were ruptured in the removal. Pedicle secured by tendinous suture, shoemaker's stitch, and the divided peritonæum approximated over the stump by continuous suture, and returned to place. Other ovary cystic, tube enlarged,—both removed. Shock severe and prolonged, although the rectal temperature; when put to bed, was 99. Temperature before operation normal. Rallied slowly, no pain or nausea. After 48 hours albumen and casts, granular and hyaline, apparent in urine, which was of low specific gravity and scanty. Death occurred on the third day, after almost entire suppression of urine.

Autopsy.—No hæmorrhage, no general peritonitis; ¾ oz. red serum in Douglass' fossa, swarming with active micrococci and bacilli. Kidneys pale, flabby, capsule adherent in places; in tubules were found both micrococci and bacilli. Cause of death, septic nephritis. The operation was done under careful aseptic precautions, but in the unopened smaller cysts were found active organisms similar to those in the kidney and retro-uterine fossa.

Dr. Marcy also gave the history of a case where death had occurred about forty-eight hours after the spontaneous rupture of an ovarian cyst not larger than a large walnut. In the thick molasses-colored fluid of the cyst there were very large and numerous bacilli, which was the presumed cause of the septic peritonitis. The doctor had not found any allusion to the existence of micro-organisms in cysts of the ovary, but believed they were commonly present in dermoid cysts; was unable to explain their origin.

Dr. M. also exhibited the ovaries and tubes removed from a patient the day before. Widow, over 40, never pregnant, well until four years ago. Since then, severe pain in the pelvis had been a constant factor, with occasional menorrhagia, so pronounced as often to demand the tampon. Patient was sent to him by Dr. A. Young, of Prescott, Wis., with statement in letter introducing her that he had never seen a more pitiable sufferer. Diagnosis, disease of the ovaries and tubes with a small fibroid tumor.

Operation, without complication, confirmed the diagnosis. Sub-peritoneal, pediculated myoma of size of English walnut; refrained from its removal. Tubes much enlarged and convoluted. Slight cystic degeneration of ovaries, with adhesion of right ovary. (Under date of March 20, Dr. M. reports convalescence without complication.)

Dr. M. also exhibited the cotyledons from a cow, which he had removed, having been detained over night at the house of a farmer when at a consultation visit in the country recently. Cow, 15 years old, had been delivered of a dead calf four days before; hæmorrhage so severe as to threaten death, animal very weak. Had removed with much difficulty a

placenta composed of 30 to 40 cotyledons, each firmly adherent. Decomposition had already set in and the entire mass about half filled a pail.

Dr. Warner suggested that the fibroid, in one of Dr. Marcy's cases, might have been the cause of the hæmorrhage. Reply: This could hardly have been, as the fibroid was attached externally. Still, persisted Dr. W., the pedicle would be likely to penetrate to the mucous membrane of the cavity and so set up an excitation leading to hæmorrhage. Dr. M. replied that his studies, so far as he had pursued them, would hardly warrant any such conclusion.

Dr. Wheeler asked what killed the patient in the second case reported. Dr. Marcy replied that, in his belief, it was septicæmia. Dr. Martin asked if the urine had been examined prior to the operation. Reply: It had. Dr. Nelson had examined the specimen microscopically and found it full of micrococci.

Dr. Wheeler remarked: It was formerly believed septicæmia did not appear at so early a date, but he thought this view was now abandoned, and Dr. Marcy's experience in the case reported, gives confirmation in this direction. He had himself had similar experience.

Society adjourned.

INTERNATIONAL MEDICAL CONGRESS.—ABSTRACT OF A PAPER ON NOVEL MEANS AND METHODS IN THE TREATMENT OF DISEASES OF THE SKIN.

BY JOHN V. SHOEMAKER, A.M. M.D.

Lecturer on Dermatology at the Jefferson Medical College, and Instructor thereon in the Postgraduate course of that Institution. Physician to the Philadelphia Hospital for Skin Diseases, etc.

[Read before the Section of Dermatology of the International Medical Congress at Copenhagen, Denmark, Aug. 12, 1884.]

After dwelling on the old routine treatment of skin diseases, the writer enumerates the changes and practical results attained by modern remedies enumerating Naphthol, Pyrogallic acid and Chrysarobin instead of the tar treatment of old; the oleates with their penetrating power as solutions to enter the glands and follicles in contrast to the older remedies which as suspensions only reached no further than the epidermal layer. He states that favus without epilation may be now cured by mercuric oleate, or copper oleate; that Trychophytosis is readily subdued by similar means, and that chromophytosis is readily cured by the latter. Arsenic and mercury are now better administered subcutaneously than formerly per orem, and that the latter had almost superseded the old inunction treatment.

He enters principally into an account of those novel means and methods which he had himself developed and been able to observe and study.

After entering into a special review of the oleates he called attention, based upon physiological experiments, to the fact that they produce little if any constitutional effect, that they do not enter into the blood and are not found in the excretions, but claims for them a better contact action than by the ointments of old, from the fact that by their solubility in fatty vehicles they are capable of entering the glands and follicles, and cites their use in the different affections, calling attention to many new ones not heretofore in use, such as mercurous, nickel and tin oleates. As a novel remedy developed by him, he refers to chlorinated oil, which, devoid of odor or irritant properties, he has formed a most serviceable remedy in scabies.

The oil of Ergot first recommended by him, he quotes as a most effectual remedy in seborrhœa of the scalp and other hairy parts of the body, for which it is far preferable to other fats and oils. In seborrhoea of the genitals he found it especially serviceable and recommends it as a hair oil for cases of idiopathic loss of hair resulting from lack of tone of the follicle. He also refers to the use of soap bark as a substitute for soap, especially as detergent for the scalp and its tincture as a mild substitute for the spiritus saponis kalinus.

In scrofuloderma he had found the hypodermatic use of Cod Liver Oil as more reliable than the internal use of it, which is often either omitted by the patient, or, if taken, not assimilated.

In reviewing the Beta Naphthol he speaks of it with much praise, and after citing interesting experiments to test the toxic effect claimed for it, he finds that if properly prepared, freed from its volatile odorous principles, it is certainly devoid of any such property, while it undoubtedly proves the most effective remedy in scabies and one of the best in psoriasis, taking the place of the unsightly and unpleasant tar, and mentions its favorable action in eczema, etc.

The accounts of his use in diseases of the skin of the infusion of the jequirity forms one of the most important points of the paper. Deducing from its use in granulating lids that it might have a similar action on granulating conditions of the skin, he had applied it to cases of specific scrofulous and epithelial ulcers and obstinate ulcers generally, and from an experience with it in a year was so gratified with the results that he recommends and endorses the use thereof in all such conditions. He employed a 25 pr. c. infusion, which was made by macerating the decortiscated cotyledons and rubbing them up, allowing the pulp to remain therein.

Describing the manner in which the specific jequirity inflammation develops itself, he cites various cases in which, after other means had failed, this infusion alone had been able to effect cures. While calling attention to the fact that it may at times produce unpleasant symptoms, he states that he had at no time seen serious consequences follow its use.

Speaking of mechanical remedies, the writer describes them in a general way, and enumerates them as, 1st, massage; 2d, compression; 3d, blood-letting; 4th, incision; 5th, excision; 6th, enucleation; 7th, scooping; 8th, scraping; 9th, the sëton, and 10th, cauterization. While not claiming them as new in their manner and character, he refers to them as being neglected by the practitioner, though of great use and value. Massage he recommends both for its constitutional and local effect. The former to insure

passive motion when it cannot be performed actively, as well as by promoting oxidation so necessary in psoriasis, as well as in other affections when it is necessary to carry off effete products, and also in neuralgia, perverted sensibility and trophic disturbances of the skin. He also recommends it in chronic and sub-acute forms of eczema to remove deposits and infiltrations. In seborrhœa he also finds it useful as well as in indurated acne glandular swelling, and in excessive and deficient pigmentation of the skin. Compression he refers to as indicated when support is wanting by means of any substance giving rest to the affected parts. He recommends it in eczema, especially when involving the abdomen, nates and genitals. It thus prevents friction, relieves congestions and he claims it as a useful adjuvant in certain eruptive fevers, the œdema after erysipelas, eczema, furuncular and glandular affections, herpes, herpes zoster and urticaria. Blood-letting he considers as efficacious both for local and general effect. As an antiphlogistic it is of great value, especially in chronic eczema, to assist the action of constitutional remedies. Topical blood-letting by either puncturing, scarification and leeching, is of the greatest importance to relieve the engorged cutaneous vessels in the various inflammations of the skin. Venesection as constitutional means, proves most valuable in certain cutaneous eruptions occurring in plethoric subjects. Incision made for the purpose of exposing, dividing and removing the parts is at times of great importance to relieve tension of the integument, divide sensitive nerves and give vent to pent up inflammatory products, and is useful in sycosis, rosacea, erysipelas, boils and carbuncles. Excision for the removal of morbid parts, both by knife, ligature or crushing, is spoken of as often of absolute necessity, while enucleation to remove diseased structures after incision into skin and capsules would come under the same heading. Scooping, scraping and cauterization are treated by the author in a like manner for the purpose of destructive action on diseased and neoplastic developments, particularly the latter, either through heated mediums or the lens and solar rays, are recommended for that purpose.

The writer in closing, points out that the means and methods referred to have been of great use to him, and if confirmed by others they would certainly form an important addition to our knowledge of the therapeutics of dermatology.

PASTEUR'S experiments with the virus of rabies have been investigated by a committee appointed to inquire into the reality of the protection afforded against hydrophobia. This committee has entirely verified his conclusions. Of 23 dogs which were submitted as protected all have been found proof against inoculation with the virus of rabies, whilst of eight unprotected dogs on which intra-venous inoculation was performed, and five unprotected ones which underwent trepanning and inoculation, all became mad.

STATE MEDICINE.

STATE BOARD OF HEALTH SANITARY REPORTS OF CONNECTICUT.

BY DR. C. W. CHAMBERLAIN, SECRETARY.

MORTALITY IN JUNE, 1884.

	HARTFORD.	NEW HAVEN.	MERIDEN.	WATERBURY.	NEW BRITAIN.	BRIDGEPORT.	NORWICH.	NEW LONDON.	MIDDLETOWN.
Total deaths	69	106	22	30	25	49	35	13	13
Monthly death-rate	16	16	12	15	18	16	16	12	9
Zymotics	16	18	5	6	8	..	5	2	..
Infantile	17	39	6	2	10	23	14	6	..
Nervous diseases	9	23	7	3	4	..	4	..	3
Heart diseases	5	10	1	1	..	2	3	1	1
Scarlet fever	3	4	..	..	2	1	..	1	..
Typhoid fever	...	2	..	..	..	..	..	..	..
Typho-malarial fever	1	1	..	..	1	..	..	..	..
Malarial fever	..	..	..	..	..	..	..	..	..
Diphtheria and croup	8	2	..	..	4	1	1	..	1
Whooping-cough	..	..	..	1	..	..	..	..	..
Cholera infantum	3	6	2	1	1	5	..	..	..
Diarrhœal diseases, adult	..	2	1	..	..	..	1	..	..
Cerebro-spinal meningitis	..	..	2	1	..	..	1	..	..
Consumption	7	17	1	7	6	8	3	3	2
Pneu'ia and congs'n lung	5	6	..	1	..	6	1	1	..
Bronchitis	1	1	..	..	..	..	..	..	..
Old age	3	2	2	..	..	..	..	..	..
Railroad accidents	1	..	..	..	..	..	..	..	..
Accident and violence	4	3	2	1	..	2	..	1	1
In public institutions	6	11	..	..	..	..	..	..	6

June is usually one of the healthiest months in the year when there are comparatively few deaths from zymotic diseases, for the reason probably that the people are so much more out of doors. Then the changeable spring weather that has played such sad havoc among the consumptives and the weakly generally, and has been so unfavorable to all kinds of diseases of the air passages and respiratory system, has given place to a warmer temperature and less fickle changes. This year, however, while the prevalence of lung fever and fatal fevers have been less than has been the rule for the past few years, the lighter fevers and especially influenza have been more than ordinarily common. Thus from Willington almost an epidemic of influenza is reported and many cases of throat trouble, and to a less degree the same, especially the catarrhal and throat troubles is true generally. Whooping cough has been very prevalent, Hartford, Norwalk, Stafford Springs, New Hartford, Willimantic, Waterbury, and in a portion of Ridgefield, which indicates its diffusion. Scarlet fever ranks next. After a marked decline and total disappearance in many places it has reappeared in considerable virulence. The table shows its mortality in the cities. Two deaths are reported from Willimantic; seven cases, three fatal are also reported from South Manchester; cases usually severe are reported from several towns in the southwestern part of the State. The indications are that the disease is spreading and is rather increasing.

Diphtheria is less prevalent than in the spring but shows a slight increase over last month. It still lin-

gers in Hartford. The deaths, eight in number, are just double the total mortality in Bridgeport in 1833 from diphtheria, although that city before the efficient sanitary work done of late, used to report 75 or more deaths for a series of years. Four deaths are reported from Willimantic, and cases usually of a not very malignant type are reported from eight towns. The prevalence of these diseases is unusual for June, unless an epidemic exists. In most of the cases filth conditions are easily traceable. The overflow of filth from the soil pipe on the lower floor of a three-story tenement house, and a broken earthenware outlet pipe from the house to the sewer were associated with five deaths, and sink drainage percolating through a cellar wall, with two others; faulty plumbing with the greater part of those in the cities.

Each month that reports are made of causes affords more or less clear instances of the relation between filth and diphtheria. So constantly has this been noted that the Massachusetts State Board of Health in a recent circular affirm that diphtheria can be caused by filth directly without any connection with a preceding case.

Diarrhœal diseases have not been as prevalent as was indicated by their early appearance. Several cases of sudden death, both in children and adults, have been reported, death ensuing 24 and 36 hours after seizure. A few cases of dysentery have been reported, but only in one locality.

Malarial diseases are reported as increasing in the southwestern part of the State and along the valley of the Connecticut. Fevers, intermittent and remittent, are reported from Tariffville, while the month is declared to have been the healthiest of the last twelve, with little other sickness. A similar report is made from Oxford, that is, no sickness except an increase in malarial disease. Typho-malarial fever is also reported in several cases.

In general, the history of the month has not been as unfavorable to health as the average, while more so than is the case usually in June. Cheshire reports one death only, Granby but three, one from old age. Haddam is reported unusually healthy, and whooping-cough and measles as the only diseases prevalent in Stafford Springs. Ridgefield is pronounced unusually free from disease, and the same, with the exception of malarial diseases, could be said of several places.

Nervous diseases have been unusually prominent for June. Thus, New Haven reports 23 deaths, 16 from convulsions, and in many towns cases of meningitis and cerebro-spinal meningitis are reported. These are all in the part of the State where malaria has long been prevalent. That there is some causal relation in case of cerebro-spinal meningitis is more than probable. The relation to nervous diseases in general is certainly quite constant.

A fatal case of sunstroke is reported from Waterbury; one not fatal from Somers, while instances of persons overcome by the heat or partial sunstroke were oftener mentioned. The table indicates an unusual number of accidental deaths. To these must be added two from South Manchester, one from drowning, one from a broken back.

FOREIGN CORRESPONDENCE.

LONDON, August.

At the distribution of prizes and certificates to the students of St. Thomas's Hospital, the Archbishop of Canterbury, in acknowledging a vote of thanks, said that he felt great pleasure in the bond of union which existed between Lambeth Palace and St. Thomas's Hospital, and the use which the students were able to make of the Palace fields for their football, cricket and other sports. He was delighted to see how far-reaching the hospital was. It was not simply an institution, but a great nest of institutions. The human organism was one of God's greatest works, and the study of forces and influences must be to them, if they saw below the surface, a great revelation of the name of God. He had read the other day what the character of a good physician and a good surgeon ought to be, and the qualities which he should possess were courage and presence of mind, deep sympathy, perfect candor, simple manners, clear faculties, and pure moral feeling, and if over all there was shed the light of God they would have in the man who possessed them one who was qualified alike to work and to teach. Mr. Labouchere, in his journal, *Truth*, commenting upon the Archbishop's speech, hopes that if he is ever taken suddenly ill his friends will not trouble to find such a man, but trusts they will bring the nearest practitioner, for fear he should die before the good physician could be summoned to his help. A Japanese gentleman was successful in taking a prize and scholarship, and received quite an ovation upon appearing upon the platform.

The fact that the physicians and surgeons on the staff of some of the leading metropolitan hospitals are unrepresented on the board of management, is continually leading to differences between the two bodies. At the Northwest London Hospital these differences have just culminated in the resignation of the whole medical staff, the reason alleged being the dismissal of one of the members by the Committee without sufficient explanation. It is satisfactory to learn, however, that the patients will not suffer by this sudden step, as each physician and surgeon has undertaken to continue his attendance on the cases at present under his care until they are well enough to be discharged. In the meantime it is just possible the dispute may be amicably arranged, an endeavor obviously to be desired.

With the special sanction of Her Majesty, the new building now being erected for the National Hospital for the Paralyzed and Epileptic, Queen street, is to be dedicated as a memorial to his Royal Highness, the late Duke of Albany. A meeting to receive a communication from the Queen on this subject has been held, the Earl of Shaftesbury in the chair. Of the cost of the memorial building, a balance of £12,500 remains to be obtained.

Mr. Edward Crookshank, who at the present time is Director of Convict Prisons in Egypt, has brought out a very useful antiseptic first dressing companion, for the use of soldiers in the field. A tin box, adapted to be worn in a pocket of the tunic, contains

a collapsible tube, to contain a cream of iodoform and eucalyptus oil, a skip of protective carbolized tow, and a carbolized gauze bandage; the whole weighs 6½ ounces. Mr. Crookshank is, however, strongly in favor of salicylic silk or iodoform tow, as forming much more powerful antiseptic pads.

Dr. George Alfred Walker, known so well as "Graveyard" Walker, who died last week at his residence in North Wales, after a brief illness, was born at Nottingham in 1807. He became a licentiate of the Society of Apothecaries in 1829, and a member of the College of Surgeons in 1831. He studied for a long time at St. Bartholomew's Hospital, completing his professional education in Paris. Early in life he was deeply impressed by the terrible upturnings of human remains in graveyards, which he had seen in various parts of the country. For many years he resolutely waged a crusade against intra-mural interments, which ultimately brought about the passing of the law forbidding burials in church vaults, and which led to the construction of public cemeteries. In 1847 he gained possession of the notorious Enon Chapel, in London, from which he exhumed several thousand human bodies in various stages of decay, and had them entombed in a monster grave in Norwood Cemetery, at his own expense. He was the author of several works on sanitary reform and the graveyard question, and wrote a number of treatises on the skin, ulcers, gout, rheumatism, sciatica, and indigestion, which laid the foundation of a new era in the treatment of disease.

An excellent suggestion has been made with regard to the question of quarantine imposed upon vessels coming from infected ports. At present the same time is put upon all vessels alike. It is obvious that a steamer that has made a journey in three days is more dangerous than a sailing ship that left a fortnight previously. It is proposed that the length of quarantine should depend upon the date at which the vessel left an infected port.

The state of the River Thames below London is this summer in a very bad condition from a sanitary point. It is said to be due to the dry season, and also to the abstraction of great quantities of water above London by the various water companies.

An inquest was recently held upon the body of a man who having fallen from a barge, was stated by the medical witnesses to have died poisoned through swallowing a small quantity of the water. The authorities are now daily throwing upwards of a hundred tons of chloride of lime into the river at a cost of about nine pounds per ton.

Those who are interested in old, amusing records and anecdotes of the profession will find some interesting reading for leisure hours in "Mems., Maxims and Memoirs," by William Wadd, Esquire, L.T.R.S., Surgeon Extraordinary to the King, 1827.

The Medical Congress at Copenhagen is attended by more than 1,100 medical men from almost every country in the world. There were 110 from Great Britain present on the opening day, of whom 35 intend to deliver addresses. M. Pasteur has delivered an interesting address on morbific micro-organisms and vaccination. He described and explained his late experiments of inoculation, and stated that no inoculated dog had yet died.

Sir Erasmus Wilson is dead. Of late years he has given a great part of his fortune away in charity. It was due to him that the Egyptian obelisk known as Cleopatra's Needle, which now stands on the Thames embankment, was brought to England. He founded the Chair of Dermatology in the College of Surgeons in 1869, and was elected the first professor. He published many works on diseases of the skin.

G. O. M.

COPENHAGEN, DENMARK,
August 18, 1884.

MR. EDITOR:—The eighth session of the International Medical Congress has held its meeting in Copenhagen, and the Congress has adjourned to meet again in Washington in 1887, the invitation of the American Association, tendered by Dr. John S. Billings, having been accepted. This meeting has been very successful in every way, being largely attended, especially by men from the Continent and the British Isles, together with a considerable delegation from America. Although no full directory has yet been published, it is probable that there are about 1,500 members present, and the city is crowded with them.

The exercises commenced Sunday, August 10, with an address by President Panum, in the presence of His Majesty, the King of Denmark, and in the evening with a dinner given by the President and the Executive Committee. They have continued through the week, closing Saturday, August 16. Each day, with the exception of Wednesday, the 13th, there have been two sessions of the Sections—the morning session being from 8 to 12 o'clock, and the afternoon session from 1 to 3 P. M.; and also there has been a general meeting from 3:30 to 5 P. M., at which addresses were given by Pasteur, of Paris; Crudeli, of Rome; Gull, of London; Virchow, of Berlin; and Panum, of Copenhagen. The Congress has been divided for work into fourteen sections, as follows: I, Anatomy; II, Physiology; III, Pathology; IV, Medicine; V, Surgery; VI, Obstetrics and Gynæcology; VII, Ophthalmology; VIII, Pedriatria; IX, Dermatology and Syphilis; X, Nervous Diseases; XI, Laryngology; XII, Otology; XIII, State Medicine; and XIV, Military Medicine.

The officinal languages have been English, French, and German, and all of the exercises have been conducted in these languages, French being the most universal. It has frequently happened that a paper has been read perhaps in French, with the discussion opened in English, and continued in German.

The social element was not overlooked, and the whole city has been thrown open to its guests. Each day there has been some reception or dinner, chief among which were the dinner given by the city of Copenhagen on Thursday evening, and the reception and supper by the King and Queen on Friday evening.

Wednesday there were no sessions, and the members and their ladies were conveyed by fine steamers about twenty miles to Elsineur, where a fine lunch

was waiting their arrival in the old castle of Kronborg. In the evening they returned to Copenhagen by rail.

Although the chief business of a medical meeting is the dissemination and interchange of knowledge of a medical character, yet not the least benefit is the social element, the members learning to know each other personally, and ever after they appreciate each other better than if there is no acquaintance and they are known only at a distance. On this account I trust that the meeting in America in 1887 may be largely attended by the many distinguished men on this side of the Atlantic. N.

DOMESTIC CORRESPONDENCE.

TREATMENT OF CHOLERA.

BALTIMORE, Aug. 29, 1884.

DEAR DOCTOR:—While thanking you for publishing my note on Asiatic Cholera and the trouble you have taken to criticise it, I cannot refrain from drawing attention to certain facts that from haste seem to have been misunderstood. In the first place you say that "all these suggestions are founded on the assumption that the chief danger from cholera is in the loss of the water and salts of the blood, leaving that fluid too viscid to circulate." Now I wish it to be distinctly understood that I made *directly* no such assertion, but admit of course the importance of supplying liquid to help circulation, and think there are other circumstances that I am about to specify that are equally or more important. Prominent among these is a poisonous condition, leading to collapse in the last stages of cholera, typhus, yellow fever and Bright's disease, known under the name of uræmia. The substance *urea*, believed to cause this, is said to be found by chemical analysis in the serous discharges, vomit and tissues, and this it is, undecomposed, and as carbonate of ammonia, that helps to supply the food to *comma-bacteria*, or other low forms of vegetable life in the intestines, and as carbonate of ammonia, in company with carbonate of soda, gives the alkaline fluid, that I desire at first to dilute, and then get rid of at the expense of liquid injected into the peritonæum, bowels and areolar tissue rather than at that of the whole body. Another object I had in view but which I did not specify, and for which I intended to use the fountain apparatus *only in* the *areolar tissue* and *bowels* for fear of danger, was to decompose the *urea* in yellow fever, Bright's disease, cholera, severe typhus, etc., by injections of dilute liq., sodæ chlorinatæ, changing it into carbonic acid and nitrogen. A glance at the effect here produced shows how untenable the notion is that fluids injected into the peritonæum and areolar tissue will act the same as if injected directly into the blood-vessels, for if we should be foolish enough to do the latter, patients would probably perish from *nitrogen*, like air in the heart, and we all know, who have worked with the microscope, how water makes the red blood discs disappear, and acts on the zoöids and æcoids, which probably accounts for its want of permanent good effect. Specific gravity, therefore, is an important consideration when fluids are to be thrown into the peritonæum, and it is to *this*, forced by your editorial, that I would draw *particular attention* and suggest that the liquid coming from the bowels and stomach, be tested by hydrometer at the bedside, and then an artificial fluid identical or slightly exceeding it in specific gravity if possible, be employed in the peritonæum to reverse the osmosis that you speak of, or prevent, by the liquids being of the same strength on both sides of the intestine, any current, either endosmotic or exosmotic.

As to the fountain which you think requires almost the stillness of death for successful application, I would simply say that I do not prefer it when it can be dispensed with, but think that a little patience on the part of the physician will enable him to adjust it by the long, soft, flexible, thin India rubber tubes in such a way, by rubber bandages, adhesive plaster or other substances placed around the limbs, as to make both fountain and tubes almost a part of the body, and allow the patient with the reservoir hanging around his neck, attached to the shoulders, on the upper part of the body, on pulleys slightly above the bed, or otherwise, as much movement as he desires. A simpler plan to get liquid into the tissues continuously, provided the patient were strong enough to bear it, would be to insert the hypodermic syringes without pistons or rubber tubes into the areolar tissue, and tie or bandage them in place, and then put the patient in a bath-tub filled with the artificial serum, using the tub as a reservoir. Finally (if all these suggestions should prove futile), my object was to gain time, so as to enable one to employ some more potent remedy, such as a gas or liquid in which low vegetable forms could not live, applied through the rectum or otherwise, putting the patient perhaps into a bath-tub full of dilute acid liquid sufficient to cover the body with the exception of the head, the rectum being kept open by a short tube, so as to continuously dilute by water pressure and act upon the walls and contents of the bowels, instead of using a syringe. Other germs or their excrements might also be used by the stomach and bowels to starve out the cause of the disease, as suggested in my article on Paraldehyde, and a desperate case that recovered after the use of weisbier, consisting largely of yeast, carbonic acid froth, and yeast plants in active fermentation, gives strength to the argument. You now see why I wrote so briefly in my former communication on this subject, for when we enter upon the treatment of cholera the road is rough, causing many bruises, and widens to such an extent as to become the despair of the traveler.

Very respectfully, your obedient servant,

J. R. UHLER, M.D.,
234 W. Fayette street.

SPINA BIFIDA.

On the 22d of April, 1884, I delivered Mrs. C. of a female child weighing 10½ lbs. The child was well-formed, symmetrical and very well nourished. At about the third dorsal vertebra a spina bifida pre-

sented itself about the size of a pullet's egg. The tumor was pear-shaped, and with a pedicle about an inch in diameter. The fundus was somewhat corrugated and purple. It appeared to contain a small quantity of fluid. There was a distinct opening in the vertebra at the attachment of the tumor, corresponding in size to an ordinary lead pencil. The child was very fretful and cried constantly and piteously when laid upon its back. It was much more comfortable when held upright than when in any other position. Any manipulation of the tumor caused the child to cry. When it was three weeks old I made a critical examination which thoroughly satisfied me that it was a spina bifida, that it communicated with the cord, and that it was increasing in size. I constricted the pedicle with a clamp to determine whether convulsions would occur. They did, but very moderate in degree. But this caused so much suffering to the baby that further interference was postponed until two days after, when it was decided to amputate it.

In the meantime the child worried and cried most all the time, and there were slight twitchings of all the extremities, but nothing occurred which amounted to a convulsion.

I transfixed the pedicle with a stout silk cord, tied it very tightly in two lateral halves, and cut it off. A small quantity of fluid (to all appearances spinal) escaped. The tumor collapsed, and on examination showed a serous lining. The child seemed easier as soon as it was removed; and though there was a good deal of disturbance in the nervous system, and a good deal of twitching of muscles all over the body for several days, there was nothing which amounted to a convulsion, and the child could now lie on its back and sleep. It was dressed antiseptically. On the fourth day the skin had given way under the ligature, which now contained only the "roots," if the expression is allowable, of the tumor. In four more days these came away, leaving only a healthy granulating surface, which in a few more days completely healed, leaving a cicatrix exactly like an ordinary umbilicus. The child is now (August 22) as strong and healthy as one could wish to see. A perfect cure had resulted in nine days.

To illustrate the wonderful power of nature to heal wounds, I may add that when this child was born, the mother's vulva was torn and lacerated beyond all recognition. The laceration extending down to the sphincter ani—down both sides of it, and up both sides through the labii. It looked as if the opening had been made by the explosion of a charge of powder. It was literally torn in shreds, one end of the sphincter vagina muscles protruded ¾ of an inch and could only with difficulty be replaced in position. Indeed, so extensive was the laceration that I deemed it unwise to sew it up lest I should get occlusion of the vagina. This state of affairs was brought about by the head *bursting* through a *perfectly unyielding* perinæum by a tremendous contraction of the uterus, and this notwithstanding I had my hand upon the head holding it back in order to avert such a calamity.

The parts were carefully cleansed and the woman placed upon her side with orders to remain so until next day. When I examined her 24 hours after, I found the parts had so nearly approximated themselves as to leave very little, if any deformity, and as Dame Nature had made such a skilful beginning, I decided to leave the whole work to her, just to see what she was capable of doing. The result, the lady assures me, is perfect, a perfect recovery taking place in 10 days, and that she now "feels splendidly, better than she ever did before in her life," and certainly her looks and actions would confirm the statement.

F. W. EPLEY.

New Richmond, Wis., Aug. 22, 1884.

TÆNIA IN INFANCY.

DUBUQUE, IOWA, August 29, 1884.

EDITOR OF JOURNAL OF AMERICAN MEDICAL ASSOCIATION:

In your paper of the 23rd inst., Dr. J. R. Wilkins reports a case of tænia in a child 2½ years old. In my notes of Prof. Monti's lectures, held at the Vienna Poliklinik in the winter of 1878-79, I find mention of a case, said to have occurred in this country, where the infant was only 4 weeks old. To explain the occurrence of tænia at such an early age, it was supposed that the fœtus had swallowed a cysticercus floating in the liquor amnii.

Respectfully,

G. MINGES, M.D.

NECROLOGY.

We take pleasure in adding to the full biographical sketch of Dr. Woodward, given in our last number from the pen of Dr. Toner, the following just tribute received from the Surgeon-General's office.—ED.

WAR DEPARTMENT,
SURGEON-GENERAL'S OFFICE,
WASHINGTON, D. C., August 20, 1884.

In announcing to the Officers of the Medical Department the death of Joseph Janvier Woodward, Surgeon and Brevet Lieutenant Colonel, U. S. Army, which occurred near Philadelphia, Pa., August 17, 1884, the Surgeon-General wishes to offer his tribute of respect to the memory of the deceased, whose distinguished career and valuable services, for a period of twenty-three years, have shed lustre on the Corps, and for whose untimely loss feelings of profound regret will be shared alike by his comrades in arms and by the profession at large.

Doctor Woodward was born in Philadelphia, Pa., October 30, 1833, and was educated at the Central High School of that city, graduating with honor as Bachelor of Arts in 1850, and receiving the degree of Master of Arts from the same institution in 1855.

He graduated in medicine at the University of Pennsylvania, April, 1853; entered the Army as Assistant Surgeon, August 5, 1861; became Captain and Assistant Surgeon, July 28, 1866; Major and Surgeon, June 26, 1876. "For faithful and meritorious services during the war" he received the brevets of Captain, Major, and Lieutenant Colonel U. S. Army.

He was assigned to duty in this office May 19, 1862, and from that date until the beginning of the illness which terminated in his death was intimately identified with its professional and scientific work.

While the valuable results of his life's labor are comprehended in a long list of miscellaneous publications, both professional and scientific, too familiar to the Corps to require individual mention, his greatest triumphs were won in the field of microscopical investigation in normal and pathological histology, and in his happy application of photomicrography to the purposes of science. In these pursuits he attained remarkable success, and achieved an enviable, world wide reputation, leaving to science and medicine lessons of undoubted value and usefulness. Of his strictly professional work, the medical portion of the Medical and Surgical History of the War of the Rebellion was the crowning achievement. In the second part of this work he developed the results of his careful investigations into the nature and pathology of the intestinal diseases which had proved so fatal in the late war. Here, also, he displayed his wonderful capacity for that minute and exhaustive research which forms so striking a feature of his writings.

As in the case of his co-laborer, Otis, he yields to other hands the honor of completing his labors.

In addition to his engrossing professional duties, his restless activity of mind led him to seek recreation in his favorite studies—physics, art and philosophy.

Endowed with a retentive memory and of untiring industry, he acquired a vast store of information which he held available for use at will; fluent of speech, he took delight in the expression of his views and opinions, both in social converse and in the arena of scientific debate.

His fund of knowledge, his strong convictions, his tenacity of opinion and his quick perception, made him a controversialist of no low order.

With such a record, it is needless to speak of his zeal, his ambition or his devotion to his profession, and especially to the reputation of the corps of which he was so bright an ornament.

Of a sensitive, highly strung, nervous organization, the confinement, anxiety and labor to which he was subjected in his attendance upon the late President Garfield during his long illness, proved too much for a mind and body already overstrained by incessant labor, and precipitated the illness which finally terminated his life.

At the time of his death, Dr. Woodward was a member and ex-President of the American Medical Association, a member and ex-President of the Washington Philosophical Society, a member of the National Academy of Science, of the Association for the Advancement of Science, of the Academy of Natural Sciences of Philadelphia, and of the College of Physicians and Surgeons of Philadelphia. He was an honorary member of several American and foreign scientific, medical and microscopical societies, and the recipient of many distinguished honors from learned bodies in this country and abroad.

R. MURRAY,
Surgeon-General, U. S. Army.

MISCELLANEOUS.

ENCYCLOPÆDIA OF MEDICAL WIT, HUMOR AND CURIOSITIES OF MEDICINE.

The undersigned proposes to publish, during the coming year, a large volume under the above or a similar title.

In this undertaking he respectfully solicits the kindly aid of the profession. Witticisms, and anecdotes of a humorous, or curious nature are solicited. There are numberless unpublished experiences that would prove a source of amusement and instruction, and all physicians, druggists, dentists, and others supplying original contributions will receive due credit in the work.

Information regarding suitable literature—home and foreign, ancient and modern—will be gladly received, and highly appreciated. The author is especially anxious to avail himself of every source, and would highly appreciate all information concerning publications likely to be useful for reference.

All letters, contributions, clippings, books and other matter should be addressed to

JULIUS WISE, M.D.,
806 Olive street, St. Louis, Mo.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM AUG. 22, 1884, TO AUG. 28, 1884.

Head, John F., Colonel and Surgeon, granted leave of absence for four months. S. O. 201, A.G.O., Aug. 27, 1884.

Woodhull, A. A., Major and Surgeon, detailed as member of Med. Exam'g Board at U. S. Mil'y Academy, West Point, N. Y., vice Capt. R. H. White, relieved. Upon adjournment of the board to return to his proper station. S. O. 201, C. S. A. G. O

Lippincott, Henry, Promoted Major and Surgeon to rank from August 17, 1884, vice Woodward, deceased.

Bartholf, J. H., Capt. and Ass't Surgeon, relieved from duty in Dept of the Columbia, and to report in person to commanding general Dept. of Texas, for assignment to duty. S. O., 199, A. G. O., August 25, 1884.

Finley, J. A., Capt. and Ass't Surgeon. The leave of absence granted him in S O. 91, C. S., Dept. of Texas, extended two months. S. O. 196 A. G. O., Aug 23, 1884.

Crampton, Louis W., Capt. and Ass't. Surgeon, to report at Creedmoor, L. I., N. Y., not later than August 30, as competitor; and, in addition thereto, as medical officer of the detachment of competitors. S. O., 41, Div. of the Atlantic, August 20, 1884.

Taylor, M. E., Capt. and Ass't. Surgeon, granted leave of absence for four months, to take effect on arrival of a medical officer at David's Island, N. Y., to replace him. S. O. 200, A. G. O., August 26, 1884.

Cochran, J. J, 1st Lieut. and Ass't. Surgeon, assigned to duty at the Presidio of San Francisco, Cal., S. O. 81, Div. of the Pacific, August 16, 1884.

Fisher, W. W. R., 1st Lieut. and Ass't. Surgeon. When relieved by Ass't. Surgeon Cochran, to report in person to Commanding General Dept. of Arizona for assignment to duty in that department. S. O. 81, C. S., Div. of the Pacific.

McCaw, Walter D., appointed Ass't. Surgeon with rank of 1st Lieut, to date from August 20, 1884.